

[NOT MEASUREMENT SENSITIVE]
FED-STD-313E
July 01, 2014

SUPERSEDING
FED-STD-313D
w/CHANGE Notice 1
March 21, 2000

FEDERAL STANDARD
MATERIAL SAFETY DATA, TRANSPORTATION DATA AND DISPOSAL DATA
FOR HAZARDOUS MATERIALS FURNISHED TO GOVERNMENT ACTIVITIES

The General Services Administration has authorized the use of this federal standard by all federal agencies.

1. Scope and Purpose.

1.1 Scope. This standard establishes requirements for the preparation and submission of (Material) Safety Data Sheets (M)SDS by contractors who provide hazardous materials to government activities. MSDS and SDS are used interchangeably in this document.

1.2 Purpose. This Standard was developed to expand on the Occupational Safety and Health Administration (OSHA) definition for hazardous materials. Data obtained will be used within the government in employee safety and health programs and to provide for safe handling, storage, use, transportation and environmentally acceptable disposal of hazardous materials by government activities.

1.3 Application. Full compliance to the requirements of this standard is not applicable to contractors before June 1, 2015. Until then, contractors may still prepare and submit safety data sheets meeting the previous version of this standard.

2. Applicable Documents.

2.1 Government Publication. The issues of the following documents, in effect on the date of invitation for bids or request for proposal, form a part of this standard to the extent specified herein.

CODE OF FEDERAL REGULATIONS (CFRs)

Title 10 - Energy

Title 29 - Labor

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any other data which may improve this document should be sent to: General Services Administration (GSA), Engineering & Cataloging Division (QSDEC), 1800 F Street NW, Washington, DC 20405; or fedstd313@gsa.gov.

FSC MISC

FED-STD-313E

Title 40 - Protection of Environment

Title 49 - Transportation

(Copies of CFRs are available on line at www.ecfr.gov or from the Superintendent of Documents, US GPO, North Capital and H streets, N.W., Washington, DC 20402-0002. A Toxic Release Inventory (TRI) chemical list (EPA 745/K-94-052) is available from the EPCRA Document Distribution Center, 11029 Kenwood Road, Cincinnati, 45242, Attention NCEPI, or on the Internet at www.epa.gov/tri/)

US Air Force Manual 24-204 Interservice Publication:

"AFMAN 24-204(IP)/TM38-250/NAVSUP PUB 505/MCO P4030.19J/DLAI
4145.3 Preparing Hazardous Materials for Military Air Shipments"

(Application for copies should be addressed via the Contract Administration Office (CAD), Defense Contract Management Area Operations (DCMAO's) or the Defense Plant Representative Office (DPRO). An electronic copy of AFJMAN 24-204 can be accessed via the internet at www.e-publishing.af.mil)

2.2 OTHER PUBLICATIONS

International Air Transport Association (IATA):

"Dangerous Goods Regulations (DGR)"

(Application for copies should be addressed to: Publications Assistant, International Air Transport Association, 800 Place Victoria, P.O Box 113, Montreal, Quebec, H4Z1M1. This is also available from commercial booksellers, and via the internet at www.iata.org)

International Maritime Organization (IMO)

"International Maritime Dangerous Goods (IMDG) Code"

(Application for copies should be addressed to: International Maritime Organization, 4 Albert Embankment, London, SE1 7SR, United Kingdom. This is also available from commercial booksellers, and via the internet at www.imo.org)

American Conference of Governmental Industrial Hygienists (ACGIH):

"Threshold Limit Values for Chemical Substances and Physical Agents in the Workroom Environment"

(Application for copies should be addressed to: American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Cincinnati, OH 45240. This is also available via the internet at www.acgih.org)

Fed-Std-313E

International Civil Aviation Organization (ICAO):

"Technical Instructions for the Safe Transport of Dangerous Goods by Air"

(Application for copies should be addressed to: The Document Sales Unit, International Civil Aviation Organization, 1000 Sherbrooke St W. Suite 400, Montreal, Quebec, Canada H3A 2R2. This is also available via the internet at www.icao.int)

American National Standards Institute (ANSI):

Z400.1/Z129.1 - "Hazardous Workplace Chemicals - Hazard Evaluation and Safety Data Sheet and Precautionary Labeling Preparation"

(Copies of this document are available on line at www.ansi.org or from The American National Standards Institute, 25 West 43rd St., 4th Floor, New York NY 10036-4422.)

United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) "XML Naming and Design Rules"

(Application for copies should be addressed to: United Nations Publications Customer Service, C/O National Book Network, 15200 NBN Way, P.O. Box 190, Blue Ridge Summit, PA 17214. This is also available via the internet at www.unece.org/cefact/, via email at unpublications@nbnbooks.com, or via Toll Free phone: 1-800-254-4266.)

United Nations Economic Commission for Europe (UNECE) Globally Harmonized System of Classification and Labeling of Chemicals (GHS):

(Application for copies should be addressed to: United Nations Publications Customer Service, C/O National Book Network, 15200 NBN Way, P.O. Box 190, Blue Ridge Summit, PA 17214. This is also available via the internet at www.unp.un.org, via email at unpublications@nbnbooks.com, or via Toll Free phone: 1-888-254-4286; or Toll Free fax: 1-800-338-4550.)

Product Hazard Data, Extensible Mark-up Language, submission schema for the Department of Defense. (PHD/XML)

(Application for copies should be addressed to: Office of the Secretary of Defense, Acquisition Technology and Logistics, Installations, Energy and Environment, Business Enterprise Integration Directorate, 4800 Mark Center Drive, East Tower, Alexandria, VA, 22530. This is also available via the internet at http://www.acq.osd.mil/ie/bei/hazmat_initiatives.shtml)

3. Definitions.

3.1 Contractor. The contractor is any supplier, manufacturer, or other party who provides material to a government agency.

FED-STD-313E

3.2 Hazardous Material.

3.2.1 Any item or chemical which is a "health hazard" or "physical hazard" as defined by OSHA in 29 CFR 1910.1200, which includes, but is not limited to, the following:

- chemicals which are classified as posing one of the following hazardous effects such as acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard.

- chemicals which are classified as posing one of the following hazardous effects: explosive, flammable (gases, aerosols, liquids, solids); self-heating, organic peroxide, corrosive to metal, gas under pressure; or when in contact with water emits flammable gas.

- materials which in the course of normal handling, use, or storage operations may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics.

3.2.2 Any item or chemical which is reportable or potentially reportable or notifiable as inventory under the reporting requirements of the Designation, Reportable Quantities, and Notification (40 CFR Part 302), or as an environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372), which includes the following:

- chemicals with special characteristics which in the opinion of the manufacturer can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

3.2.3 Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard and is regulated as such by one or more of the following:

- Department of Transportation Pipeline and Hazardous Materials Regulations 49 CFR 100-180);

- International Maritime Dangerous Goods (IMDG) of the International Maritime Organization (IMO) Dangerous Goods Regulations (DGR);

- Dangerous Goods Regulations of the International Air Transport Association (IATA);

FED-STD-313E

-Technical Instructions for the safe Transport of Dangerous Goods by Air of the International Civil Aviation Organization (ICAO); and

-US Air Force Manual 24-204 (Interservice Publication, Preparing Hazardous Materials for Military Air Shipments (AFMAN 24-204IP)).

3.2.4 The item or chemical is a special nuclear, source, or by-product material as defined in 10 CFR or is regulated or referred to as radioactive under one or more of the referenced documents in paragraph 2 above.

3.2.5 End items incorporating hazardous material (including those contained in removable components when originally installed in the end item) when the incorporation does not eliminate the hazardous nature throughout the life cycle of the end item.

3.3 Preparer. The preparer is the entity that developed the SDS and has provided the mailing address and phone number for contacting the manufacturer, and the emergency response phone number. The preparer is responsible for the accuracy of the technical data in the SDS. The preparer may or may not be the contractor furnishing the material to the government.

3.4 End item. The end item is a final combination of assemblies, components, modules, and parts which is designed to perform an operational function and is ready for intended use.

4. General Statement of Requirements

4.1 Referencing this standard in purchase documents. Government agencies shall reference this standard in commodity specifications, contracts, and other purchase documents to assure inclusion of adequate requirements and clear instructions to contractors for the preparation and submission of SDSs.

4.2 Preparation and Submission of the SDS

4.2.1 Items requiring an SDS. For commodity-like items, contractors shall furnish a separate SDS for each individual item which is defined as hazardous in section 3.2, or which is required by the contract or order, or as specified in Appendix A. For end items as defined in 3.2.5, contractors shall also furnish a separate SDS for each individual hazardous material incorporated into an end item. However, when specified in the contract or order, the requirement of SDSs for end items may be waived if the Head of the Contracting Activity determines that it is in the best interest of the Government to use alternative approaches of obtaining the necessary data. See paragraph 6.2 for additional information on intent.

4.2.2 Preparation of SDS. Effective June 1, 2015, the SDS shall meet the latest requirements of the Occupational Safety and Health Act (OSHA)

FED-STD-313E

in 29 CFR 1910.1200 OSHA Hazard Communication Standard commonly known as the HazCom or HCS, and its referenced United Nations Economic Commission for Europe (UNECE) Globally Harmonized System (GHS) of Classification and Labeling of Chemicals, commonly known as the GHS Purple Book. The SDS shall be compliant with the GHS. All sixteen (16) sections including the section numbers and headings, and associated information under each heading shall be completed with at least the minimum information and in the order listed in Appendix D of the HCS, and Annex 4 of the current GHS Purple Book, to include structured data, compliant with the United Nations Centre for trade facilitation and electronic business (UN/CEFACT) XML schema. Agencies may prescribe its UN/CEFACT XML-compliant schema in the contract or order, or submit standard XML SDSs per the GHS Purple Book. For the Department of Defense (DoD), each section shall contain all legally required information and additional data identified by the current version of the Product Hazard Data, Extensible Mark-up Language (PHD/XML) submission schema. For GSA, the SDS data shall comply with UN/CEFACT standard XML schema and shall include the additional information of 4.3, if not already covered. Before June 1, 2015, SDSs meeting the requirements of the previous 1994 HCS and ANSI Z400.1/Z129.1 or any similar standard shall be acceptable.

4.2.2.1 At all times, the SDS preparers must indicate in section 2 when the SDS is available in languages other than English. Information required under paragraph 4.3 must also be provided. Contractors, who have not manufactured the hazardous material they are furnishing to the government, may append the government identifiers specified in 4.3.1, 4.3.2, and 4.3.3 to the preparer's SDS, provided the SDS meets all other requirements of this standard. SDSs shall not be considered complete and accurate if they are containing obvious errors or omissions, and/or fail the XML schema definition for the receiving agency.

4.2.3 Submission of the SDS.

4.2.3.1 Effective June 1, 2015, unless otherwise specified in the contract or order, electronic submission of the SDS to the contracting officer or to the Government receipt points in paragraph 5.1 shall be the only way acceptable. The electronic format of the transmission shall be XML in the UNECE definition, defined by the UN/CEFACT and implemented by the receiving agency's XML Schema. Before June 1, 2015, physical copies shall be submitted as specified in the contract or order. Electronic submission may be accepted depending on the receiving agencies' capabilities.

4.2.3.2 At all times, unless otherwise specified in the contract or order, a physical copy of the SDS(s) shall be furnished with each shipping container and/or with the shipping documentation accompanying each shipment. When authorized by the contracting officer, contract or order electronic transmission of SDS in advance of shipment shall be permitted.

4.2.4 Revision of SDS. The contractor shall submit a revised SDS when there has been a change in the composition or characteristics of the product or when the contractor has knowledge of new information which affects any of

the information on the SDS, thus rendering the original SDS incomplete. The revised SDS shall be submitted to the Service/Agency SDS receipt point(s) listed in paragraph 5 for the Military service or Federal agency that purchased the item, and shall be included with future shipments. When a hazardous product is repackaged, relabeled, or renamed, the chemical product and company name on the SDS, as well as the label information, Section 2 shall match that on the package.

4.3 Additional information required. In addition to all health and safety information required in 4.2.2, the SDS shall contain, or have appended, information in 4.2.2.1 and 4.3.1 through 4.3.3 and also information in 4.3.4 through 4.3.7 if not already covered.

4.3.1 The contract or solicitation number, manufacturers Commercial and Government Entity (CAGE) code, and contractors name and CAGE code.

4.3.2 The national stock number, activity control number, or local stock number specified in the contract. If these are not present, enter the Federal Supply Schedule Special Item Number or Category for the item.

4.3.3 Where applicable, the specification reference including specification number, revision letter, type, grade, and class.

4.3.4 The chemical and common name(s), Chemical Abstract Service (CAS), Registry number(s), and percentage(s) by weight of composition of all ingredients that are defined as hazardous in paragraph 3.2. The percentage may be specified as an upper limit or upper bound, as defined by 40 CFR 372.45. The specific hazardous chemical information must be provided unless it meets the 'trade secret' criteria of 29 CFR 1910.1200 or 40 CFR 350. The contractor shall treat trade secret data consistent with 29 CFR 1910.1200 or 40 CFR 350, as applicable. The contractor must indicate the authority under which trade secret data is withheld. The Government must maintain trade secret data in confidence, and only release the data consistent with 29 CFR 1910.1200 or 40 CFR 350, as applicable.

4.3.5 The OSHA Permissible Exposure Limit (PEL), ACGIH Threshold Limit Value (TLV), and any other exposure limit known to the preparer for the product as a whole, or any of its hazardous constituents. This may include recommendations made by recognized toxicological groups, the manufacturer, or importer preparing the SDS.

4.3.6 The toxic chemicals as specified under EPA's 40 CFR parts 355, 370, and 372.

4.3.7 Transportation data, to include the Proper Shipping Name, United Nations or North America Identification Number, Hazard Class, Packaging Group.

5. General Statements of Requirements

FED-STD-313E

5.1 Safety Data Sheet Receipt Points. In addition to any other SDS requirements in the contract, contractors shall submit a physical or electronic copy of each SDS to the applicable mailing address or e-mail indicated below for the Service/Agency/GSA Commodity Center which procured the item.

<u>Procuring Service/Agency</u>	<u>SDS receipt point</u>
Air Force:	USAFSAM/OET ATTN: HMIRS 2510 Fifth Street, Bldg 840 Wright-Patterson AFB, OH 45433 EMAIL:esoh.service.center@wpafb.af.mil
Army:	Chief USAMC LOGSA Packaging, Storage, and Containerization Center ATTN: AMXLS-AT-P (HMIRS) 11 Hap Arnold Blvd. Tobyhanna, PA 18466-5097
Defense Logistics Agency:	Commander Defense Supply Center, Richmond ATTN: DSCR-VBA 8000 Jefferson Davis Highway Richmond, VA 23297-5607
Defense Mapping Agency:	Director Defense Mapping Agency ATTN: HRG, Occupational Health, A-8 8613 Lee Hwy, Fairfax, 22031
GSA - All Commodities:	HMIRS Focal Point GSA/FAS/QSDKC 1500 East banister road, Building 6 Kansas City, MO 64131
National Security Agency:	Director National Security Agency Central Security Service ATTN: CODE L542 Ft. George Meade, MD 20756-6000
Navy and Marine Corps:	Commanding Officer Navy and Marine Corps Public Health Center ATTN: IH-HMIRS 620 John Paul Jones Circle, Suite 1100 Portsmouth, VA 23708-2103
Postal Service	United States Postal Service Safety and Risk Management 475 L'Enfant Plaza West

FED-STD-313E

Washington, DC 20260-4231

Tennessee Valley Authority

TN Valley Authority
 Employee Relations and Safety Program
 P.O. Box 1010
 MPB 1B Muscle Shoals, AL 35662-1010

US Coast Guard:

Commandant (G-KSE)
 US Coast Guard
 2100 2nd Street, SW
 Washington, DC 20260-4231

Veterans Affairs

Facility Safety Official
 National Engineering Service Center
 Department of veterans Affairs
 2350 market Plaza, Suite 100
 St. Louis, MO 63103

6. NOTES

6.1 Intended use. This standard is intended to capture the requirements for furnishing GHS-compliant SDSs by contractors who furnish hazardous material to the government. The effective date for GHS-compliant SDSs is set for June 1st, 2015. Before this date, contractors may prepare and submit MSDSs/SDSs in accordance with revision D, w/CN1 or revision E, or both.

6.2 Intended use for end items (or articles). It is not the intent of the government to collect or have contractors generate unique MSDSs for articles, but to collect and monitor SDSs which would have been made available to the prime contractor during the manufacturing process (from his subcontractors) for the components and subassemblies making up the larger end item. The exception to this process would be when the prime contractor is manufacturing or generating new chemicals as a result of the manufacturing process. Despite of the aforementioned, this revision of the standard provides some flexibility in the approach by permitting a waiver to requiring SDSs for end items if the Head of the Contracting Activity determines that it is in the best interest of the Government to use alternative approaches of obtaining the necessary data. Alternative approaches may include, but is not limited to, the inclusion of the necessary data as distinct deliverables under the contract.

MILITARY INTEREST:

Military Coordinating
 Activity: DLA-DLSC-LEP

Civil Agency Coordinating
 Activity: COM-NIST
 DOE
 EPA
 HHS-NIH
 HHS-DSR

FED-STD-313E

DOL-TEC
DOT-OST
VA-OSS

Custodians: Army - MD
Navy - SA
Air Force - 07

Review Activities: Army - SM
Navy - MS, AS, SH
Air Force - 69, 03, 04, 08, 11, 40, 50
DLA - GS
Marine Corps - MC (LF1, LPP, SD, HQ)

Preparing Activity: GSA-FAS

APPENDIX A

Identification of Hazardous Items by Federal Supply Class/Group

10.1(FSC/FSG). Any FSC/FSG could contain a hazardous item.

Table I and Table II are not intended to be inclusive listings of all hazardous items, but to identify the major classes/groups which contain hazardous items. However, not all items in these classes/groups are hazardous.

FSCs in which most items are hazardous. An SDS is required for all items listed in Table I unless the offeror provides written documentation that the items are not hazardous by any definition in section 3.2 of this standard.

Table I - Examples of FSCs In Which Most Items Are Hazardous

FSC	TITLE
6810	Chemicals
6820	Dyes
6830	Gases: Compressed and Liquefied
6840	Pest Control Agents and Disinfectants
6850	Miscellaneous Chemicals Specialties
7930	Cleaning and Polishing Compounds and Preparations
8010	Paints, Dopes, Varnishes, and Related Products
8030	Preservative and Sealing Compounds
8040	Adhesive
9110	Fuels, Solid
9130	Liquid Propellants and Fuels and Fuels, Petroleum Base
9135	Liquid Propellant Fuels and Oxidizers, Chemical Base
9140	Fuels Oils
9145	Oils and Greases: Cutting, Lubricating, and Hydraulic
9160	Miscellaneous Waxes, Oils and Fats

FED-STD-313E

10.2 Other FCGs. An SDS is required for all hazardous items defined in paragraph 3.2. Table II lists some examples of hazardous items in other Federal supply items not listed in Table I.

This is not an all inclusive list, but is only meant as guidance.

Table I - Examples of FSCs In Which Most Items Are Hazardous

FSC	TITLE	EXAMPLES OF HAZARDOUS ITEMS
12	Fire Control Equipment	Initiator propellants, cartridges power device
13	Ammunition & Explosives	Explosive Devices, fire starter, flares
14	Guided Missile Components & Accessories	Cartridges power devices, rockets, PCB's
15	Aircraft & Airframe Structural Components	Radioactive Materials
16	Aircraft Components & Accessories	Items containing asbestos
22	Railway Equipment	Items containing asbestos
25	Vehicular Equipment Components	Items containing asbestos
26	Tire & Tubes	Items containing flammable or toxic compounds
34	Metalworking Machinery	Compressed gases, cleaners, acids, flux, and supplies containing or producing hazardous fumes
36	Miscellaneous Machinery	Flammable or toxic hazardous fumes
42	Fire Fighting, Rescue & Safety Equipment	Extinguishing agents, repair and refill kits containing hazardous chemicals, items containing compressed gases or initiating charges
53	Hardware & Abrasives	Asbestos material, lead caulking, hazardous chemicals, items producing hazardous dust
54	Prefabricated Structures & Scaffolding	Repair kits containing hazardous chemicals
56	Construction & Building Materials	Cutback asphalt, deck and floor covering, sealing compounds, asbestos, formaldehyde, repair kits containing hazardous chemicals
58	Communication, Detection, & Coherent Radiation Equipment	Circuit cooler items containing ozone depleting substances, cleaners with hazardous chemicals
59	Electrical & Electronic Equipment Components	Items with PCB's, radioactive materials, flammable solvents, asbestos, or magnetic items
61	Electric Wire, & Power Distribution Equipment	Lithium, mercury, lead-acid, nickel-cadmium batteries

62	Lighting Fixtures & Lamps, Household & Quarters Use	Lithium, mercury, lead-acid, nickel-cadmium batteries
63	Alarm, Signal, & Security Detection Systems	Items containing wet batteries or radioactive materials
65	Medical, Dental, & Veterinary Equipment & Supplies	Items containing hazardous chemicals, radioactive materials, mercury, asbestos, or flammable solvents
66	Instruments & Laboratory Equipment	Radioactive materials, flammable compounds, mercury, asbestos, compressed gases
67	Photographic Equipment	Radioactive compounds, solvents, thinners, and cements
75	Office Supplies & Devices	Solvents, thinners, cleaning fluids, flammable inks, varnishes, and chemicals with off-gas
84	Clothing, Individual Equipment & Insignia	Maintenance kits containing flammable solvents
85	Personal Toiletry Articles	Pressurized containers with flammable or nonflammable propellants
87	Agriculture Supplies	Items containing herbicides and/or insecticides
93	Fabricated Materials	Items containing flammable solvents or toxic materials
96	Ores, Minerals, and their Primary Products	Asbestos, mica, silica