

HTIS



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"I Need an MSDS – Whom do I Contact?"

*Eduardo Alvarado
Chemical Engineer, HTIS*

Material Safety Data Sheets (MSDSs) are product hazard information sheets that must be available to an employee for the hazardous materials to which they may be potentially exposed in the workplace. The Department of Labor's Occupational Safety and Health Administration (OSHA) specifies the MSDS requirements at 29 CFR 1910.1200(g). The Hazard Communication Standard is commonly known as "HAZCOM" or "Worker Right-to-Know". The DOD implements this Federal regulation via its DOD Instruction 6050.5 (see <http://www.dtic.mil/whs/directives/corres/html/60505.htm>)

Within the Federal Government, there is a centralized database repository of MSDSs identified as the Hazardous Materials Information

Resource System (HMIRS), formerly known as Hazardous Materials Information System (HMIS), which to date contains nearly 300,000 product records.

One utilizes the HMIRS database to locate a desired MSDS. The HMIRS database is available in two formats: 1) as a **CD-ROM** set (*non-proprietary only*), or 2) **On-Line**. The HMIRS CD-ROM set is available to only U.S. military and federal government facilities. Pages 3 and 4 list the points of contact to obtain the HMIRS CD-ROM. HMIRS ON-LINE is available to only U.S. military, federal government employees and government sponsored contractors at: <https://hmirmsds.dlis.dla.mil/hmirs/login.asp>. In order to use the HMIRS on-line, one must be a registered subscriber.

A U.S. military or federal government employee, can request access to **HMIRS on-line** by visiting the following web page:

The HTIS Bulletin is designed to keep DOD personnel informed of technical and regulatory developments on the environmentally safe management of hazardous materials and wastes. For technical inquiries, call **DSN 695.5168** or commercial **804.279.5168** or toll free **800. 848.4847**

http://www.dlis.dla.mil/forms/hmirs_govemplo_yees.htm. Print out the request form, complete it, and fax it to DSN 932-5925/Commercial 616-961-5925. Non-proprietary access occurs in about two days, but longer for proprietary.

A federal government sponsored contractor can request access to HMIRS on-line by visiting the following web page:

http://www.dlis.dla.mil/forms/hmirs_govsponc_ontractors.htm. Print out the request form, fill it in and fax it to DSN 932-5925/Commercial 616-961-5925. One receives non-proprietary access to HMIRS on-line in about two days.

If one cannot find the desired MSDS in the HMIRS database for a product which one has requisitioned via a National Stock Number (NSN) from an Inventory Control Point (ICP)-Item Manager (IM), the next step is to ascertain and contact the appropriate Service/Agency ICP/IM for the asset, or the designated Service/Agency HMIRS focal point. **There is no single MSDS point of contact (POC)** since the Army, Navy, Air Force, DLA and GSA have their respective HMIRS MSDS POCs. At the ICP/IM or wholesale supply system level, the “apparent successful offeror”, for an asset the government wishes to procure, submits the appropriate MSDS prior to award to the government contracting officer responsible for the asset under consideration. The ICP/IM, in accordance with the Service/Agency policies, procedures, and protocols that implement the previously cited DOD Instruction, would forward the MSDS to its designated Service/Agency focal point to review, scan for image input, and utilize as the basis for the generation of value-added information proper to HMIRS.

When one “locally” procures products - that meet the definition of a hazardous material as set forth in OSHA’s 29CFR1910.1200 and Federal Standard 313 - via the use of a Government-wide purchase card or one’s installation Contracting Office, **the party procuring the asset and not the ICP/IM becomes responsible for obtaining the MSDS directly from the vendor who**

provides the asset. Prior to “locally” procuring an asset for which an MSDS is required, one should review the installation’s and major command’s policies, procedures, and protocols. Having obtained an MSDS, one should forward it to one’s Service/Agency Focal Point for input into the HMIRS. Although there may be no NSN (a “locally assigned NSN” is not recognized as a logistically assigned NSN at the FLIS level) for the procured asset, one’s Service Focal Point can input the MSDS under a part number thereby making the MSDS available to other installations who may be consider procuring the same asset.

To determine which Service/Agency HMIRS Focal Point to call for an MSDS not available in HMIRS, but proper to the asset that one has requisitioned from an ICP/IM, one first has to ascertain which ICP/IM manages the item. A three-digit code known as the “Routing Identifier Code/Source of Supply Code” (RIC/SOS) and located in the management data segment of logistics information programs such as FEDLOG will identify which ICP/IM manages the asset. The RIC/SOS codes are such that the first letter designates the Service or Agency of concern. For example, SXX = Defense Logistics Agency; AXX and BXX = Army; FXX = Air Force; MXX = Marine Corps; NXX = Navy; and GXX = GSA or a non-DOD entity. The “XX” is used to identify a specific ICP (e.g. S9G = DSCR, or B16 = CECOM, or N35 = Naval ICP). A list of the RIC/SOS proper to DOD activities can be found on pages I-122/123 of DLA’s **Customer Assistance Handbook**, 14th edition (2002) at: http://www.supply.dla.mil//CustomerHandbook/5Handbook_1.doc.

Once the ICP/IM is known, one needs to find the appropriate Service/Agency HMIRS representative by reviewing the HMIRS directory provided below; and advise them of one’s inability to locate an appropriate MSDS in the DOD HMIRS for the asset in hand.

HMIRS DIRECTORY

**Functional and Program Managers
Service/Agency Focal Points and POCs**
(June 2003)

Functional Manager – Linwood Gilman
Defense Supply Center Richmond
ATTN: DSCR-VBB
8000 Jefferson Davis Highway
Richmond, VA. 23297-5608
804-279-3518(v)/-4149(f); DSN-695-xxxx

Program Manager – Kay Eggers
Defense Logistics Information Services
ATTN: DLIS-S
74 Washington Avenue N
Battle Creek, MI. 49017
269-961-4472(v)/4008(f); DSN-932-xxxx

DLA Focal Point POCs:
Safety and Health

Robert L. Cook
Defense Supply Center Richmond
ATTN: DSCR-VBA
8000 Jefferson Davis Highway
Richmond, VA. 23297-5607
804-279-5252(v)/-4149(f); DSN-695-xxxx

MSDS Technical Support Line –
804-279-4371(v)/-4194(f); DSN-695-xxxx
E-Mail: hmis@dscr.dla.mil

Transportation
*Same as Safety and Health***CD-ROM**

Peter Shen
Defense Supply Center Richmond
ATTN: DSCR-VBB
8000 Jefferson Davis Highway
Richmond, VA. 23297-5608
804-279-5735(v)/-4149(f); DSN-695-xxxx

Air Force Focal Point POCs:
Safety and Health

TSgt Sally Perez
ATTN: AFIOH/RSH/HMIRS

2513 Kennedy Circle
Brooks City-Base, TX. 78235-5116
210-536-6128(v)/2315(f); DSN-240-xxxx

Transportation

Tonita Davis
HQ AFMC/LSO/LOT
5215 Thurlow Street
Wright Patterson AFB, OH. 45433-5540
937-257-4503(v)/-4403(f); DSN-787-xxxx

CD-ROM*Same as Safety and Health***Army and National Guard Focal Point
POCs:****Safety and Health**

Kevin Wisniewski
USACHPPM
ATTN: MCHB-TS-OFS
Aberdeen Proving Grounds, MD. 21010-5403
410-612-5470(v)/-8795(f); DSN-584-xxxx

Transportation

Sandy Pizzuti
USAMC LOGSA PSCC
ATTN: AMXLIS-AT
11 Hap Arnold Boulevard
Tobyhanna, PA. 18466-5097
570-895-7682(v)/-7894(f); DSN-795-xxxx

CD-ROM*Same as Transportation***Navy and Marine Corps Focal Point
POCs:****Safety and Health**

Gene Kostinas
Navy Environmental Health Center
ATTN: HMIRS
620 John Paul Jones Circle, Suite 1100
Portsmouth, VA. 23708-2103
757-953-0746(v)/-0689(f); DSN-377-xxxx

Transportation**Michael Bullock**

Commanding Officer –
Naval Transportation Support Center
ATTN: Code 02G
1837 Morris Street, Suite 600
Norfolk, VA. 23511-3492
757-443-5407(v)/-5411(f); DSN-646-xxxx

CD-ROM**Cindy Schmitt**

Navy Inventory Control Point (NAVICP)
Mechanicsburg, PA. 17055
717-605-9144(v)/-3480(f); DSN-430-xxxx

Coast Guard Focal Point POCs:**Safety and Health**

Brenda Bidwell (deployed)
CDR Wade McConnell (Temporary)
US Coast Guard HQ (G-WKS-3)
2100 2nd Street SW
Washington, DC. 20593
202-267-1388(v)/-4355(f)

Transportation**Sallie L. Jones**

Traffic Manager
6751 Alexander Bell Drive
Columbia, MD. 21046
410-762-6329(v)/-6932(f)

CD-ROM

Same as Safety and Health

GSA Focal Point POCs:**Safety and Health****Randall Schober**

Hardware and Appliance Center
ATTN: GSA/FSS/HAC-6FET
1500 E. Bannister Road, Bldg #6
Kansas City, MO. 64131
816-926-2429(v)/-1371(f); DSN-465-xxxx

MSDS Request Line -

866-588-7659(v) & E-Mail: msds@gsa.gov

Transportation

Same as Safety and Health

CD-ROM

Same as Safety and Health

As a matter of information, the HMIRS, which is a relational database, debuted in May 2002, and **all MSDSs** entered to the system after that date **are scanned** copies of the contractor's submitted MSDS unlike the former HMIS in which data from the submitted MSDS were transcribed to a fixed DOD format. As with the former HMIS, the HMIRS contains value-added data (e.g. logistics, transportation, etc.) to assist the user in meeting various regulatory requirements.

The Universal Stationary / Mobile NoFoam Unit

Abdul H. Khalid
Chemical Engineer, HTIS

The Department of Defense's (DOD's) Environmental Security Technology Certification Program's (ESTCP's) purpose is to demonstrate and validate promising and innovative technologies that target the DOD's most urgent environmental needs through the implementation and commercialization of these technologies. In turn, these technologies provide a return on investment through cost savings and improved efficiency.

Recently, the Naval Facilities Engineering Service Center (NFESC) at Port Hueneme, CA under the sponsorship of ESTCP, developed, demonstrated, and validated the Universal Stationary/Mobile NoFoam Unit (USNOFU) or external NoFoam Unit for testing the onboard foam distribution system on Aircraft Rescue and Fire Fighting (ARFF) vehicles.

Fire fighting vehicles guidelines and policies

require quarterly Aqueous Film Foaming Foam (AFFF) discharge tests on all ARFF vehicles to ensure that these vehicles operate properly in an emergency. The current method of determining an ARFF vehicle's performance in the field is to discharge AFFF through each of the vehicle's nozzles and then collect foam samples in accordance with the National Fire Protection Association (NFPA)'s Standard 412. Each vehicle is equipped with at least two, and up to as many as five different types of nozzles, depending on the vehicle type. This procedure generates large quantity of AFFF wastewater.

AFFF is an effective fire-fighting agent, but its waste poses environmental concerns. AFFF has both a high biological and chemical oxygen demand, as well as an extreme foaming action. Additionally, the U.S. Environmental Protection Agency is concerned with AFFF's fluorinated surfactant compound, which does not readily biodegrade, and is both toxic and bioaccumulating.

The NoFoam Unit is an environmentally safe method used to test the performance of foam distribution systems on ARFF vehicles. It can significantly reduce or eliminate the AFFF waste generated during a vehicle's foam distribution system performance checks. The NoFoam Unit does not alter the vehicle's fire fighting capabilities and is universal to any ARFF vehicle. Additionally, 95% of the system's hardware is installed on a trailer or stationary platform. The hardware consists of a control panel with monitor, flow sensor, piping, and surrogate fluid. Retrofit modules for ARFF vehicle models P19, P23, P300, TA3000, and CF4000L are available.

Some of the benefits are:

- Reduces or eliminates AFFF waste and disposal costs from routine foam proportioning system checks.
- The dye is environmentally benign, biodegradable, and certified by the National

Sanitation Foundation International and the American National Standards Institute.

- Reduces AFFF concentrate purchases.
- Allows facilities to comply with Federal pollution and waste minimization regulations.
- Discharge tests can be routinely performed, giving fire fighters a higher confidence level in their ability to perform their mission.
- Can be used as a diagnostic tool to check the ARFF vehicle foam distribution system.
- Universal to any model ARFF vehicle and can be used throughout the DOD and by the private sector.
- Requires minimal user operational training and maintenance.

DOD activities have used this technology successfully and are available for implementation. Tests were conducted at the following locations: Air Force Research Laboratory, Fire Research Group, Tyndall AFB FL.; ARFF Branch, Marine Corps Air Facility Quantico, VA.; fire departments at Naval Air Station Fallon, NV.; and Fort Benning, GA. The retrofit modules were installed on four P19s, one P300, two TA3000, and three CF4000L vehicles for demonstration and validation.

A NoFoam Unit trailer costs approximately \$15,500. Depending on the ARFF vehicle, retrofit modules cost between \$1,000 to \$2,000 per vehicle. On a weekly discharge schedule, checks on three P19 ARFF vehicles result in a payback of less than 2 months. This is based on 640-gallons of wastewater generated per test (per vehicle), times 5 weeks, times \$1.58 per gallon.

For further information, DOD personnel can contact Mr. Rance T. Kudo, NFESC, ESC 421, Port Hueneme, CA, Phone: (805) 982-4976, DSN 551-4976 or e-mail at:

kudort@nfesc.navy.mil or contact, Mr. Andrew Drucker, phone: (805) 982-1108, DSN 551-1108 or e-mail at: druckeras@nfesc.navy.mil

Information and Assistance on Emergency Escape Routes from the Workplace

Beverly Howell
Industrial Hygienist, HTIS

The Occupational Safety and Health Administration has prepared a Fact Sheet to assist employers with preparing employees escape from the workplace. In light of recent global incidents, knowing a route of escape is paramount to the well being of all personnel. "Knowing how to escape from one's workplace during an emergency is not just another safety and health issue requiring compliance by employers and consideration by workers. Armed with valid and reliable information, that knowledge can save lives".

The Occupational Safety and Health Administration developed the [Emergency Exit Routes](#) fact sheet designed to ensure employers and workers are equipped with that information. The fact sheet augments the agency's standard on exit routes, and emergency action and fire prevention plans.

"No one should need reminding how quickly an event can occur that necessitates emergency evacuation from the workplace," said OSHA Administrator John Henshaw. "The information we've compiled in this fact sheet provides a readily-available tool to aid employers and workers in being prepared to safely evacuate their workplaces should an emergency occur."

Information in the fact sheet not only defines exit routes and explains how many exit routes a worksite should have, but also provides information on how to design an exit route that will ensure safe evacuation for all workers. Also included is a list of required maintenance, safeguarding and operational features for exit

routes.

The fact sheet provides information on emergency action plan requirements, detailing the plan's minimum elements, such as procedures for reporting fires and other emergencies, personnel accountability, alarm systems, etc. Minimum provisions and requirements for fire prevention plans are also outlined in the fact sheet. Finally, a list of resources for more details on exit routes and related OSHA standards are provided.

OSHA recently revamped its 30-year-old [standard](#) dealing with exit routes, emergency action and fire prevention plans, wrapping it in a user-friendlier format with clear, consistent and up-to-date information. Inconsistent and duplicative requirements were replaced with simple, and straightforward terms that aid workers and employers in understanding the important regulation. The revised standard was effective on Dec. 9, 2002."

Reference

Trade News Release, U.S. Department of Labor, Office of Public Affairs, "*Fact Sheet Offers Information, Assistance on Emergency Escape Routes from the Workplace*", 17 April 2003

Heat –Related Occupational Injuries and Illnesses

Abdul Khalid
Chemical Engineer, HTIS

OSHA's Publication No. 3154 titled "*Heat Stress Card*" provides useful information to prevent heat stress injuries. This publication is available in English and Spanish and lists precautions that can prevent many heat-related deaths and injuries. It offers a quick reference about heat-related injuries, including warning signs, symptoms and early treatment. For warning signs and symptoms visit OSHA's web site at:

<http://www.osha.gov/Publications/osh3154.pdf>

In an elevated temperature environment, one needs to plan one's work pace accordingly and drink fluids on a regular basis. Often, the U.S. National Weather Service issues weather alerts or warning when the heat index is expected to rise beyond 105 F degrees.

The combination of heat, humidity and physical labor can lead to fatalities. In 2000, 21 workers died and 2,554 others experienced heat-related occupational injuries and illnesses serious enough to miss work. Additional illnesses may be under-reported if workers and employers are not familiar with the warning signs. The two most serious forms of heat related illnesses are: 1) heat exhaustion (primarily from dehydration) and 2) heat stroke, which could be fatal. Signs of heat exhaustion or heat stroke need immediate attention. Recognizing signs and symptoms such as dizziness, nausea, weakness, dry, pale skin or hot red skin, seizures, mood changes and taking appropriate action in time, can make a difference in preventing a fatality.

Workers and employers can avoid most heat-related injuries and illnesses on the job if they follow some of the guidelines listed below:

- Encourage workers to drink plenty of water (without salt) about one cup of cool water every 15 to 20 minutes, even if they are not thirsty (**thirst is not always a correct indicator**). Alcohol, coffee and tea, which contribute to dehydration, should be avoided.
- Help workers adjust to the heat by assigning a lighter workload and longer rest periods for the first 5 to 7 days of intense heat. This process needs to start all over again when a worker returns from vacation or absence due to illness or injury.
- Encourage workers to wear lightweight, loose-fitting, light-colored clothing. Workers should change their clothing should their clothing become completely saturated.

- Use general ventilation and spot cooling at points of high heat production. Good airflow increases evaporation and cooling of the skin. Stagnant atmospheric conditions and poor air quality can induce heat-related illnesses.
 - Train first-aid workers to recognize and treat the signs of heat stress. Be sure that all workers know who is trained to render first aid. Supervisors should also be able to detect the early signs of heat-related illness and permit workers to interrupt their work if they become extremely uncomfortable.
 - Consider a worker's physical condition when determining fitness to work in hot environments. Obesity, lack of conditioning, pregnancy and inadequate rest can increase susceptibility to heat stress.
 - Alternate work and rest periods, with longer rest periods in a cooler area. Shorter, but frequent, work-rest cycles are best. Schedule heavy work for cooler parts of the day and use appropriate protective clothing.
 - Certain medical conditions, such as heart conditions, or treatments like low-sodium diets and some medications, increase the risk from heat exposure. Seek a physician's advice in these cases.
 - Monitor temperatures, humidity, and workers' responses to heat at least hourly.
 - Learn to spot the signs of heat stroke, which can be fatal. The symptoms are mental confusion and/or a loss of consciousness, a body temperature of 106 degrees, and hot, dry skin. If someone has stopped sweating, seek medical attention immediately. Other heat-induced illnesses include heat exhaustion, heat cramps, skin rashes, swelling and loss of mental and physical work capacity.
- DOD personnel interested in further information about OSHA's fact sheet, *"Protecting Workers in Hot Environments,"*

can contact OSHA's Publication Office or retrieve the information on-line at <http://www.osha.gov/>. For publications, call OSHA, phone: (202) 693-1888 or by writing to: US Department of Labor/OSHA, OSHA Publications, P.O. Box 37535, Washington, D.C. 20013-7535. More information on heat and sun hazards is also available on the Centers for Disease Control and Prevention (CDC) web site at <http://www.cdc.gov/NIOSH>.

References:

OSHA's web site at:

<http://www.osha.gov/Publications/osha3154.pdf>.

<http://www.osha.gov/SLTC/heatstress/index.html>.

Does a Plus (+) Sign in DOT's Hazardous Material Table (HMT) Fix the Proper Shipping Name (PSN)?

*Muhammad Hanif
Chemist, HTIS*

The classification of hazardous material (HM) mixtures or solutions can become dubious when attempting to assign a proper shipping name especially when a mixture or solution contains one of the HM listed in DOT's table contained at 49CFR172.101, and the HM has a (+) sign in column (1).

The plus (+) sign fixes the proper shipping name, hazard class, and packing group for that entry without regard to whether the material meets the definition of that class, packing group or any other hazard class definition. This applies only to materials that are essentially pure, or of a technical grade. The plus (+) sign eliminates shipper's discretion in determining whether a material meets the defining criteria for a hazard class. The shipper may not change the packing group or hazard class determination in any way. For example, an entry from the HMT that includes the plus (+) sign is: Methanol, 3, UN1230, PG II. The shipper is not allowed to change the classification of methanol's packing group or the hazard class determination in any way,

even if the shipper has information that suggests otherwise.

However, the proper shipping name is no longer fixed if the hazardous material is mixed with another hazardous material or a substantial amount of a non-hazardous material. The plus (+) sign is no longer considered when the HM mixture or solution no longer exhibits the same hazard to humans as the technical or pure grade of the material. In this case, in accordance with 172.101(c)(12), the mixture or solution may be described using an alternative shipping name that represents the hazards posed by the material.

When a HM mixture or solution consisting of two or more hazardous materials with one HM being listed with a plus (+) sign in column (1) of the HMT, the shipper may tend to over classify or classify the mixture under the HM entry that has the plus (+) sign, reasoning that the plus (+) sign fixes the proper shipping name. Extra shipping expenses may occur if a hazardous material is over classified and multiple labels are applied in order to address a hazard component in a mixture when in reality additional labeling is not required. For example, a mixture of methanol and potassium hydroxide may be best described as "Flammable liquid, corrosive, n.o.s.(methanol & potassium hydroxide), 3, UN2924, PG II" instead of "Flammable liquid, toxic, corrosive, n.o.s. (methanol & potassium hydroxide), 3, UN3286, PG II." Another example is ethyl alcohol denatured with methyl alcohol (Formula 3A), which is utilized in various applications in DOD and industry. In accordance with 27CFR21, Formula -3A contains 100 gallons of ethyl alcohol and 5 gallons of methyl alcohol. This mixture would not exhibit the same hazards to humans as the pure or technical grade of methanol. Although the methanol entry in HMT is preceded with plus (+) sign in column (1) the shipper may elect to describe the HM by using an alternate shipping name for the mixture (Alcohol, n.o.s.(ethanol & methanol), Ethanol mixture, or Flammable liquid, n.o.s. (ethanol & methanol),

etc.). Also, it may not be appropriate to use Flammable liquid, toxic, n.o.s.(ethanol & methanol), or Methanol mixtures as a shipping name because of the small percentage of methanol (it would not exhibit the same characteristics as pure methanol). On the other hand, when shipped internationally, if the proper shipping name Methanol solution, or Methanol mixture is used for a diluted solution of methanol or methanol mixture, the shipper must additionally apply a subsidiary risk label of 6.1 on the container, since plus (+) sign determines the shipping description of methanol.

When preparing packed laboratory chemicals for transportation, such as a lab pack that contains a material listed in the HMT with a plus (+) sign in column (1) for example o-Dichlorobenzene, 6.1, UN1591, PG III, the following will apply: this HM may be packaged with other compatible hazardous materials of the same hazard class in non-specification packaging but its name cannot be replaced with generic shipping name that is allowed in the lab packs exception found in 49CFR173.12(b). The exception provides relief from the specification packaging requirements of combination packagings if packaged in accordance with the section and allows the shipper to use a generic shipping name to represent compatible materials in the same class instead of specific chemical names when packaged in the same outer packaging. However, in this instance since o-Dichlorobenzene has a plus (+) sign in column (1), that name is fixed and therefore it cannot be replaced with a generic shipping name. Additionally, the specific shipping name (o-Dichlorobenzene) must be marked on the outside packaging in addition to the generic description for the other hazardous materials in the lab pack and listed separately on the shipping paper.

References: 49 Code of Federal Regulations, Parts 172 and 173.

Are you using HTIS as your information source?

Department of Transportation Reference Numbers (reprint)

*Muhammad Hanif
Chemist, HTIS*

Recently the Department of Transportation (DOT) revised the format of the reference numbers, commonly called **EX** numbers, for ammunition and explosives items. **EX** numbers are assigned by DOT when an ammunition/explosives item has been properly hazard classified and is now legal to be shipped. This article is intended to give some background on **EX** numbers and answer the more frequent questions concerning the new format. Previously, the **EX** number consisted of the two letters "**EX**", a dash and seven numbers. The first four numbers designate the year and month DOT assigned the **EX** number. The last three numbers are sequence numbers. For example, an item assigned **EX-9210008** is the eighth item assigned a reference number in October 1992.

A suffix of up to three letters may be found on certain **EX** numbers. This denotes that the item was hazard classified by the hazard classification method of "not new". It is explosively comparable to an item that had previously been assigned a reference number. This existing reference number would be used for the new item but a suffix would be added. The suffix "B" denotes it is the second item and the suffix "AA" denotes it is the twenty-seventh item to be classified as "not new" to an existing item.

Recently, the DOT instituted a new format for **EX** numbers to accommodate their new record system. It eliminated the dash, added two spaces so the complete year is shown, the fifth and sixth numbers now depict the month and the last four numbers are the sequence numbers. The reference numbers now look like **EX2003051234**. Suffixes remain the same. The previous **EX** numbers and DOT documentation are still valid. All **EX** numbers that DOT now assigns are in the new format.

The new format is also used for **EX** numbers that are reissued. For example, an **EX** number may have originally been assigned in 1988 and the DOT letter may not be available. If DOT reissues a new letter with the **EX** number, the letter will have the same **EX** number but in the new format. *The Joint Hazard Classification System (JHCS) did a "global" change of all the EX numbers in the database.* If a user has items packaged in boxes or has paperwork with **EX-9210008**, the JHCS will show the EX number as **EX1992100008**. No action is required to transport an item due to the new format. **Shipping containers that are marked with the old format of the EX numbers do not need to be remarked.** An item is uniquely identified by its assigned **EX** number under the old or the new format. POC for further information, USATCES, Risk Management Division, DSN 956-8807, Commercial (918) 420-8807

Reference:

Explosives Safety Bulletin, Vol 14, Issue 3, May 2003, U.S. Army Technical Center for Explosives Safety (USATCES), McAlester, OK,

Waste Test Methods Adopted

Tom McCarley
Chemist, HTIS

The EPA's Office of Solid Waste has recently adopted six new analytical test methods for evaluating organic waste samples. The new methods are incorporated into EPA's massive (3000 + pages) guidance manual of test methods, SW-846 - *Methods for Evaluating Solid Waste, Physical/Chemical Methods.*

In a very few cases, SW-846 methods are required by regulation such as Method 1311, the familiar Toxicity Characteristic Leaching Procedure (TCLP); for these prescriptive laboratory methods, flexibility on the part of the waste generator and testing laboratory is limited. In recent years, the EPA methods team has been going over the hazardous waste regulations under the Resource Conservation

and Recovery Act (RCRA) to find where other methods are called out (delisting petitions for example) and suggesting that the regulations themselves be modified to allow more flexibility in waste testing. Almost all of SW-846 is therefore guidance but is still very much used by regulators and waste testing laboratories.

The new methods are:

- Method 8265: Volatile Organic Compounds in Water, Soil, Soil Gas and Air by Direct Sampling Ion Trap Mass Spectrometry.
- Method 5035A: Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples
- Method 4025: Screening for Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans (PCDD/Fs) by Immunoassay
- Method 3570 Microscale Solvent Extraction (MSE)
- Method 3511: Organic Compounds in Water by Microextraction
- Method 8323: Determination of Organotins by Micro-Liquid Chromatography-Electrospray Ion Trap Mass Spectrometry.

A more detailed description of the new test methods and links to the full text of the new test methods in pdf format are found at <http://www.epa.gov/epaoswer/hazwaste/test/new-meth.htm>

Reference:

New SW-846 test methods -
<http://www.epa.gov/epaoswer/hazwaste/test/sw846.htm>

EPA Issues Corrective Action Completion Guidance

Tom McCarley
Chemist, HTIS

Corrective Action is the program for Hazardous Waste facilities whereby EPA and the States can require cleanup of contaminated areas onsite in return for the "privilege" of having a permit for the storage, treatment, or disposal of hazardous waste under the Resource Conservation and Recovery Act (RCRA). A number of our defense installations are undergoing corrective action cleanups in a wide variety of ways under the oversight of State and EPA regulators. 40 CFR 264.100/101 delineates the requirement for RCRA permit holders to undertake such corrective action as necessary to "protect human health and the environment".

A final comprehensive final rule for corrective action at RCRA facilities has never been finalized; only the use of corrective action management units (CAMUs) and Temporary units (TUs) for use during cleanups have been addressed by rulemaking and are codified at 40 CFR 264.552/553.

EPA has now issued a memorandum covering what constitutes completion of corrective action activities at a site. The memorandum (dual dated February 12 and 13, 2003), published in the February 25, 2003 Federal Register, serves as final guidance on the completion issue. Based on a February 27, 2002 Federal Register notice on this issue, the guidance memorandum describes two completion scenarios for corrective action at a site:

- Corrective Action Completion *without* Controls
- Corrective Action Completion *with* Controls (requires monitoring)

In either case (**with or without controls**), three conditions must be satisfied:

- (1) "a full set of corrective measures is defined;
- (2) the facility has completed construction and installation of all required remedial actions;

(3) site-specific media cleanup objectives, which were selected based on current and reasonably expected future land use, and maximum beneficial groundwater use, have been met.

A Corrective Action Complete *without* Controls means that these objectives have been met, and the areas subject to the determination do not require any additional action or measures to ensure the remedy remains protective of human health and the environment.

For Corrective Action Complete **with** Controls, all that remains is performance of required operation and maintenance and monitoring actions, and/or compliance with and maintenance of any institutional controls."

Completion of Corrective Action cleanup at an installation is a real milestone and can result in real impact to the bottom line. The memorandum discusses the procedures for processing completion determinations and environmental managers at installations responsible for corrective action will want to examine the memorandum in full.

Reference:

Memorandum from Robert Springer, Director, Office of Solid Waste (dated February 13, 2003) and Susan E. Bromm, Director, Office of Site Remediation Enforcement.(dated February 12, 2003); Subject : Guidance on Completion of Corrective Action Activities at RCRA Facilities. The memorandum was addressed to EPA RCRA Division Directors, Regions I-X, Enforcement Division Directors, Regions I-X, Regional Counsel. Published in the Federal Register, Vol. 68, No. 37, pp8757-8764, February 25, 2003.

New Federal Facilities Stewardship and Compliance Center

Beverly Howell
Industrial Hygienist, HTIS

EPA's Federal Facilities Enforcement Office (FFEO) has launched an initiative to create a

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new and enhanced stewardship and compliance assistance center for federal facilities. With this initiative, FFEO intends to enhance and supplement the existing virtual compliance assistance center for Federal facilities (<http://www.epa.gov/fedsite>). The new web-based Center will be independent, directed and supported by federal agencies, and will integrate both good practices and compliance assistance resources of the federal government in one site.

The FFEO staff has begun meeting with agencies to discuss plans for the new Center. FFEO is soliciting suggestions on Center governance, structure and services that agencies identify as necessary to further environmental stewardship and compliance. FFEO will soon publish a request for initial proposal (RFIP) in the Federal Register requesting suggestions about the Center. The new Center is expected to be operational by next April. For more information or to offer comments or suggestions, please contact Mike Shields at 202-564-9035 or shields.mike@epa.gov.

The new Center will offer services with compliance assistance tools, pollution prevention information, environmental management information system as well as interactive training and Certification opportunities.

This Center is envisioned as an essential tool in assisting federal agencies in timely meeting the EMS requirements of EO-13148.

Reference: FedFacs, Summer03, Issue #15, EPA's FFE Office

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