



HTIS

Hazardous Technical Information Services



BULLETIN

VOL. 19 NO. 5

SEP- OCT 2009

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USCG Announces New IMO Requirement for MSDSs for Tank Ships Carrying Oils and Oil Products

By Muhammad Hanif, Chemist, HTIS

In the interest of providing sea travelers with clear, concise, and accurate information on the health effects of certain toxic substances, the Inter-national Maritime Organization (IMO) recently amended the International Convention for the Safety of Life at Sea (SOLAS), 1974, to require Material Safety Data Sheets (MSDSs) for ships carrying oil or oil fuel as defined in regulation 1 of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL or MARPOL 73/78). Accordingly, the US Coast Guard (USCG) has issued a notice providing the industry with guidance regarding the IMO's recently-adopted provisions relating to carriage of MSDSs for ships subject to the SOLAS Convention that have on board oil as defined by the MARPOL Convention either as liquid cargo in bulk or as fuel. The IMO also amended its recommendation on the content and format of the MSDS, with an effective date of 1 July 2009. The SOLAS Convention was also tentatively amended (such to the tacit approval requirement) to require carriage of the MSDS. This carriage requirement, when accepted by member States in accordance with Article VIII of SOLAS, is expected to come into effect on 1 January 2011. As of that date and subject to formal approval of the SOLAS Convention, the US Coast Guard will commence enforcement of the MSDS carriage requirement.

These new measures require that all tank ships subject to the SOLAS Convention carrying Annex I cargoes and all ships using Annex I marine fuels have MSDSs aboard prior to the loading of such oil as cargo in bulk or bunkering of oil fuel. Although the SOLAS requirements for MSDSs do not apply to vessels not subject to SOLAS, such as unmanned inland barges, other regulations, such as 46 CFR 197.565, may require MSDSs to be on board. The term "Annex I cargoes" refers to those oil cargoes included in Annex I (oils and oil products) of MARPOL 73/78; the term does not refer to chemicals.

Beginning January 1, 2011, State parties to the SOLAS Convention can be expected to verify that ships subject to SOLAS have been

provided with MSDSs, as required. Effective January 1, 2011, all U.S. flagged SOLAS Vessels traveling overseas should expect foreign Administrations to ask for MSDS for each Annex I cargo and marine oil fuel on board.

Additionally, after January 1, 2011, all U.S. and foreign flagged SOLAS vessels in U.S. ports should anticipate that the USCG will ask for MSDSs as part of its domestic and foreign vessel compliance activities and in fulfillment of the United States' duties as a party to the SOLAS Convention. The USCG anticipates that these MSDSs will be provided by the oil terminal or bunker supplier, unless otherwise arranged by the cargo/bunker supplier and the ship interests. It is further expected that shipboard personnel will have access to these MSDSs in a working language or languages understood by them. Additionally, occupational exposure limits referenced in an MSDS should be based on internationally recognized standards.

Because the IMO only recently adopted the recommended format and content for MSDSs, the USCG will provide a future notice containing detailed enforcement guidance, including MSDS guidance for vessels involved in lightering operations. In the interim, the USCG recommends that MSDSs provided to a ship follow the recommended IMO content and format as published in the [Federal Register of June 26, 2009](#). Some State parties to the SOLAS Convention may also require to follow the IMO recommended format and content of the MSDSs.

In most cases, as matter of good safety practice, vessels will already have MSDSs for all cargoes that usually will contain the recommended information. An MSDS may contain more information than the IMO recommends. In some cases, certain recommended data may not apply to the bulk liquid in question (data not applicable should be so noted); however, some IMO member Nations may require all of the recommended information, it may be a good idea to include all recommended data.

The USCG notice for the MSDS requirements in the international Convention for SOLAS was published under docket number USCG-2009-0553 in the Federal Register, Volume 74, pages 30612 to 30615, on Friday, June 26, 2009. The recommended layout and contents for MSDS can be viewed and downloaded from the web using URL: <http://edocket.access.gpo.gov/2009/E9-15337.htm>.

For further information on the USCG notice for the MSDS requirements, you may contact Dr. Alan L. Schneider by phone 202-372-1421 or email alan.l.schneider@uscg.mil.

Reference: Federal Register, Volume 74, pages 30612 to 30615, on Friday, June 26, 2009.

Errata

In the article "Summer Fire Safety", published in the Jul-Aug 2009 edition of the HTIS Bulletin, the statement "All propane cylinders **manufactured** after April 2002", should have read "All propane cylinders **refilled** after April 2002 must have overfill protection devices (OPD)". For most consumers, the OPD requirement applies to their 20 lb gas grill tank. The National Fire Protection Association (NFPA) 58: Liquefied Petroleum Gas Code requires an OPD on all cylinders with 4 to 40-pound propane capacities that are:

1. Fabricated (manufactured) after September 30, 1998;
2. Requalified after September 30, 1998; or
3. Refilled on or after April 1, 2002.

We regret any inconveniences that this error may have caused.

DSCR and NAVAIR Join Forces on Green and Hazardous Minimization Efforts

By Moraima Lugo-Millán, Chemist, HMGP

The environmental impact of chemicals continues to be a global concern and has been a priority issue for the government for many years. The implementation of Executive Order 13423 has been a great effort to overcome this challenge. The Executive Order sets goals in the areas of energy efficiency, acquisition, renewable energy, toxics reductions, recycling, renewable energy, sustainable buildings, electronics stewardship, fleets, and water conservation.

Environmental sustainability has been integrated into DOD's policies, procedures, plans and operations, and DLA's role in making green products and services available to the customers is now more important than ever. For this reason, DLA organized a new group focused on supporting the customers in their green and hazardous minimization efforts.

The Defense Supply Center Richmond (DSCR) in Richmond, Virginia is the facilitator for the armed forces when ordering green products and the technical consultant on hazardous minimization efforts. Recently a new group of Chemists, Environmental Engineers, and Chemical Engineers was established to provide the customers with information, regulations, logistic support

in green products and services. The new effort is called Hazardous Minimization and Green Products Branch and is part of the Hazardous Information Programs Division within the Aviation Engineering Directorate. This new group has been tasked with managing the green procurement program for the Aviation Supply Chain and providing enterprise-wide technical support for green products on behalf of DLA customers. This branch also serves as a consultant venue leveraging its expertise to assist all supply chains in functions such as identifying green procurement opportunities, determining acceptable green alternative products, establishing national stock numbers for alternative items, and coordinating specification or standard changes with stakeholders.

One of the most important aspects of this branch is the direct interaction and teamwork with DLA's customers. Currently, the branch is working with the NAVY on important projects for chemical reduction and hazardous minimization efforts. These projects are targeted to evaluate current specifications, find alternatives and qualify greener products without compromising performance and safety. For this purpose, the following six NAVAIR projects were approved in 2008 and the results should be available at the end of 2009 or beginning of 2010:

- **Ready to Use (RTU) MIL-PRF-85570 Type II:** The objective of this project is to evaluate currently qualified MIL-PRF-85570 Type II aircraft cleaners in a pre-diluted form. Evaluations will include initial cleaning effectiveness, one-year and two-year storage stability, cleaning effectiveness, and corrosion testing as per the specification. Field testing and demonstration with fleet squadrons will be performed and technical manuals will be revised to direct the new RTU cleaners.
- **Qualification of MIL-PRF-85570 Type I in Aerosol form and Premoistened Wipes:** Currently the fleet is experiencing a lack of acceptable qualified aircraft spot cleaners. No MIL-PRF-85570 Type I products are available in an aerosol or wipe form. It is very common practice for fleet units to use unauthorized high solvent cleaners such as MIL-C-43616 or unqualified aerosol cleaners, creating health, safety and corrosion concerns.
- **Micro-fiber Cloths for Non-Chemical Cleaning of Canopies & Optics:** The objective of this project is to evaluate the feasibility of using the micro-fiber cloth and water for cleaning aircraft canopies, optics and instruments without the use of chemicals. The project would also allow for revisions to all applicable technical manuals and military specifications.

- **Evaluation and Qualification of High Rate Environmentally Compliant Chemical Paint Strippers:** NAVAIR's currently authorized environmentally preferred chemical paint stripper, based on benzyl alcohol and qualified to TT-R-2918, is not effective at most fleet operating conditions. This leads to multiple reapplications of product and the use of unauthorized or undesirable products such as methylene chloride. The purpose of this project is to research and find new products qualified to TT-R-2918 which are environmentally preferred, technically effective and safe on metals, especially high strength steels.
- **Evaluation & Qualification of MIL-DTL-81706 Type II Non-Chrome Pretreatment Applicator Pen:** Currently, MIL-DTL-81706 Method D applicator pen is qualified only with hexavalent chromium Type I product (Alodine 1132 Touch N Prep Pen). Aircraft maintainers do not have an environmentally friendly non-hexavalent chromium Type II option, and this project is targeted to find a substitution, test at field and depot maintenance facilities to validate application process and coating performance.
- **Evaluation & Qualification of MIL-PRF-29608 Class L CPC-Electrical Contact Cleaner:** The purpose of this project is to use perfluorinated lubricants which have been known and expected to be readily dissolved in newly developed fluorinated solvents used in formulating MIL-PRF-29608(AS) Class C. Perfluorinated lubricants are also expected to provide superior lubricity to silicone oil. The NAVAIR Materials Laboratory will first search commercial off the shelf (COTS) products formulated with perfluorinated lubricants and test them. If they are not available, current vendors for Class C will be contacted and requested to formulate Class L. As a last resort, NAVAIR will formulate Class L products with a fluorinated lubricant if no COTS product is available. All products will be tested to meet the performance expectations as stated in the specification and the new product will be qualified and tested in the field. Specification and technical manuals will be revised accordingly.

The following NAVAIR projects were sponsored in 2009:

- **Cold Spray/Kinetic Metallization Development for Military Aerospace Application:** At present a repair process for approved aluminum coatings used as alternative to cadmium and chromium does not exist. The lack of a definitive and accepted repair process and materials is a major hindrance to the acceptance of the alternative process. New aluminum coatings such as Alumiplat™ are being implemented on aircraft platforms such as JSF and

in commercial aircrafts. So it is critical that the military aerospace repair community have an acceptable repair process to gain acceptance of alternatives such as aluminum rich coatings to further the elimination of cadmium and chromium. The proposed solution is to develop, evaluate and implement alloy powders for aerospace applications using the cold spray/kinetic metallization process for corrosion and dimensional repair of aircraft parts. This would result in a repair method for cadmium/chrome replacement coatings in the field such as Alumiplat™ and also in a direct replacement for cadmium / chromium in the depot. The process would also allow for dimensional repair of critical aluminum and magnesium aircraft parts for increasing part life and reducing the total environmental impact through reuse.

- **Identification and Qualification of COTS Environmentally Compliant Non-Structural Adhesives:** The purpose for this effort is to identify, test, evaluate, qualify, and transition alternative and commercial off-the-shelf (COTS) non-structural adhesives that will meet existing environmental regulations currently precluding use of adhesives qualified to MMM-A-121, MMM-A-122, MMM-A-1617, MIL-A-5540, and A-A-1936 at some fields and depot locations. The goal is to provide qualified non-HAP, non-VOC drop-in replacements/alternatives for use in aircraft manufacture and repair operations throughout the Department of Defense (DOD).
- **Qualification of Non-Aqueous Low-VOC and HAP-Free Cleaner MIL-PRF-32295 Type II:** Air Pollution Control Districts in California implement the most stringent requirements, usually stated in terms of VOC content (Rule 1171). The San Joaquin Valley Air Pollution Control District (SJVAPCD) has imposed restrictions limiting the use of solvents with VOC content to 25 g/L for immersion cleaning processes or limiting equipment to airtight cleaning systems. The solvent used and widely approved is MIL-PRF-680 Type II, which has a VOC content of more than 750 g/L. Under the proposed rule, MIL-PRF-680 will no longer be allowed in solvent degreasing operations in the SJVAPCD. The goal of this project is to identify and qualify products that meet the new requirements, as alternatives to MIL-PRF-680 II, for cleaning heavy oils from weapon systems across DoD.

The results of these projects will be published in later editions of this bulletin. Our main mission is to promote environmental stewardship throughout DoD; diligently support the war-fighter while protecting and sustaining the environment. If you have questions

please don't hesitate to contact us at GreenProducts@dla.mil; 804-279-4060; DSN: 695-4060.

DoD News

DOD Perchlorate Release Management Policy

By Abdul H. Khalid, Chemical Engineer, HTIS

On April 22, 2009, the Office of the Under Secretary of Defense, Installation & Environment (DUSD-I &E) issued a memorandum on the new DOD Perchlorate Release Management Policy. The updated new policy on the management of perchlorate releases is applicable to perchlorate releases at DOD installations, including operational ranges and Government Owned-Contractor Operated (GOCO) facilities, Base Realignment and Closure (BRAC) sites, and Formerly Used Defense Sites (FUDS) in the United States.

Perchlorate contamination is of great concern for multiple media and this memorandum explains in details DOD's new policy for exposure to perchlorate. This policy lowers the level of concern, known as preliminary remediation goal (PRG) for perchlorate to 15 ppb from 24 ppb in 2006.

According to this memorandum, the perchlorate release management policy will affect DOD components and all DOD components shall program resources and specifically address releases in:

- Environmental Restoration
- DOD-owned Drinking Water System
- DOD Wastewater Effluent Discharges

At installations outside the United States, perchlorate issues will be addressed in accordance with DoDI 4715.5, Management of Environmental Compliance at Overseas Installations; DoDD 4715.12, Environmental and Explosives Safety Management on Operational Ranges outside the United States; DoDI 4715.8, Environmental Remediation for DoD Activities Overseas; and DOD 4715.5-0, Overseas Environmental Baseline Guidance Document. Any resulting required sampling or follow-on actions will be considered an Environmental Quality Status Class I requirement.

DOD personnel interested in this memorandum or questions on this policy should contact Mr. Paul Yarcoschak at: 703-604-0641.

Reference: The Denix website at: <https://www.denix.osd.mil/>

Office of Solid Waste Renamed

Reprint submitted by Beverly Howell

The EPA reorganized and renamed the Office of Solid Waste (OSW) to the Office of Resource Conservation and Recovery (ORCR) in January 2009. The EPA is amending the Code of Federal Regulations to reflect the reorganization and name change.

Since the EPA has increased focus on resource conservation and materials management, the name change reflects the breadth of the responsibilities / authorities that Congress provided to the EPA under RCRA.

The reorganization achieves the following:

- Consolidates the four major areas of the Resource Conservation Challenge (RCC) under one division;

- Combines data collection and data analysis activities thus streamlining operations to better coordinate efforts to analyze and present the benefits of the RCRA program; and
- Consolidates waste-to-energy activities in one division and branch.

Therefore the ORCR has three divisions, which consolidate the operations of the six divisions under the OSW structure. The divisions are:

- Materials Recovery and Waste Management Division;
- Resource Conservation and Sustainability Division; and
- Program Implementation and Information Division.

Reference: Federal Register/Vol.74.No.121/ 25 June 2009.

EPA's Final Rule on Volatile Organic Compound Emission Standards for Aerosol Coatings

By Abdul H. Khalid, Chemical Engineer, HTIS

On June 23, 2009, the US Environmental Protection Agency (EPA) issued a final rule adding more substances to a list of volatile organic compounds (VOCs) for the aerosol coatings category (aerosol spray paints). According to the EPA, this action will control and reduce ground-level ozone formation. The final rule became effective on June 23, 2009. The full text of this document is available online at:

<http://edocket.access.gpo.gov/2009/E9-14580.htm>.

According to information provided by coatings manufacturers, distributors, and importers, the chemicals added to the list of VOCs are used in aerosol coatings. The entities potentially affected by this action include:

Category	NAICS Code ¹	Examples of Regulated Entities
Paint Coating Manufacturing	32551	Manufacturing of laquers, varnished, enamels, epoxy coatings, oil; and alkyd vehicle, plastisols, polyurethane, primers, stains, water repellent coatings and shelacs.
All Other Miscellaneous Chemical Production and Preparation Manufacturing	325998	Aeros can filling, aerosol packaging services.

¹ North American Industry Classification System at: <http://www.census.gov/eos/www/naics/>

Previously, volatile organic compound emissions had been measured by their mass. The EPA amended the definition of volatile organic compounds which had been issued as part of the 2008 rule. The revised definition clarifies that substances such as ethane, methane, and methyl chloride, which have minimal reactive potential

and have previously been excluded from the definition of volatile organic compounds, must be counted when aerosol paint manufacturers determine compliance with the reactivity limit. The final rule also details recordkeeping requirements for coatings manufacturers, importers, and distributors, and for regulating agencies.

Summary of the final amendments and changes are listed below:

A. Amendments to Table 2A to Subpart E of Part 59--Reactivity Factors

In this action, the EPA finalized the addition of 128 compounds and their reactivity factors to Table 2A in response to petitions received in accordance with Sec. 59.511(j) of the rule. The EPA also added Chemical Abstract Service (CAS) numbers for each compound or class of compounds listed in Table 2A to make it easier for regulated entities to find a specific chemical. In Table 2A of the proposed rule (72 FR 38951), the EPA did not list CAS numbers for two entries: "C8 Disubstituted Benzenes" and "C9 Styrenes." In this final rule, in response to inquiries from affected entities, the EPA has added CAS numbers for these entries and listed chemical synonyms for selected entries. The reactivity factors for these compounds have not been changed. The final Table 2A lists "C8 Disubstituted Benzenes (xylenes, mixed isomers)" with CAS 1330-20-7 and RF 7.48, and "C9 styrenes (vinyl toluene, mixed isomers)" with CAS 25013-15-4 and RF 1.72. The final Table 2A is sorted in order of CAS number.

B. Clarification to Part 59, Subpart E

In the aerosol coatings reactivity rule, the definition of VOC in 40 CFR 51.100(s) is amended for the purposes of determining compliance with the regulation (as described in 40 CFR part 59--National Volatile Organic Compound Emission Standards for Consumer and Commercial Products) so that any organic compound in the volatile portion of an aerosol coatings is counted towards the product's reactivity-based limit. However, the text of Sec. 51.100(s) (7) adopted in the March 24, 2008, rule did not make clear that compounds listed in both Sec. 51.100(s) (1) and 51.100(s) (5) were to be counted as VOC for determining compliance. In this final action, the previously amended definition of VOC in part 51 was changed to clarify that compounds that are excluded from the definition of VOC under both 40 CFR 51.100(s) (1) and (s) (5) are to be counted as VOC for the purposes of determining compliance with the aerosol coatings reactivity rule in 40 CFR part 59, subpart E.

C. The Certification Process for the Assumption of Recordkeeping and Reporting Obligations

As provided in Sec. 59.501(b)(4), 59.510(b) and

59.511(g), a manufacturer, importer or distributor may choose to certify that it will assume the responsibility of maintaining records and submitting reports required under this sub-part for a regulated entity. To assume that responsibility, the entity making the certification must submit a document as described in Sec. 59.511(g).

The EPA amended Sec. 59.511(g) to call the certification document a "notice" rather than a "report." The EPA made this change because it believes that the word "notice" is a more accurate word to describe the document.

The EPA is finalizing a method to ensure that both the certifying entity and the regulated entity have full knowledge of what responsibilities are being assumed by the certifying entity. Specifically, the EPA amended Sec. 59.511(g) to provide that the certifying entity will sign the Sec. 59.511(g) notice and then send the notice to the EPA and to the regulated entity. The EPA has concluded that this method will provide the right balance between (1) making the burden of providing the certification notice reasonable, so as not to discourage manufacturers and others from taking on the recordkeeping and reporting obligations of regulated entities, and (2) making sure that both parties are aware of what responsibilities the certifying entity is assuming from the regulated entity as a result of the notice.

In this final action, Sec. 59.511(g)(3) will be amended to provide a more detailed description of what responsibilities are being assumed by the certifying entity and other related information about the division of responsibility between the certifying entity and regulated entity, and how the recordkeeping and reporting requirements will be met. Specifically, certification notices will be required to include identification of the products covered by the notice and the location or locations where the records will be maintained, among the other information required.

The EPA added a provision to Sec. 59.511(g) (to be numbered (g) (4)) requiring that the certifying document contain a statement that the certifying entity understands that failure to fulfill the responsibilities that it is assuming may result in an enforcement action against it.

The EPA revised the provision that was Sec. 59.511(g) (4) and will now appear in Sec. 59.511(g)

(5) to clarify that the certification notice must be signed by the responsible official for the certifying entity. Before this revision, the provision required the signature of the responsible official for "the company" which did not clearly identify the certifying entity as the entity signing the notice.

In addition to those amendments to Sec. 59.511(g), the EPA amended certain provisions related to the notices in Sec. 59.511(g): The EPA is adding the word "distributors" to Sec. 59.501(b) (4) to make clear that distributors as well as manufacturers and importers can be a certifying entity. The language currently in Sec. 59.501(b) (4) only refers to "manufacturers and importers," while the language in Sec. 59.511(g) refers to "manufacturers, importers and distributors." This amendment will make the two provisions consistent and avoid any confusion as to whether distributors may be a certifying entity.

The EPA is amending Sec. 59.510(b) to replace the phrase "certifying manufacturer" with "certifying entity" in order to make clear that Sec. 59.510(b) applies to all certifying entities and not just those certifying entities who are manufacturers.

The EPA requested comment on whether the 59.511(g) notice should be a certain form or contain certain language to fulfill the requirements of this section. Based on the comments received, the EPA is not imposing any specific language or format for the certification notices in the final rule. However, the EPA intends to work with interested parties to develop an optional model for the certification notices. Further, the EPA reserves the right to take action in the future if the Agency determines that particular language or format should be a requirement for proposed amendments to the rule.

D. Liability Following Sec. 59.511(g) Certification

This final rule allows a party referred to in this rule as the "certifying entity," to assume certain recordkeeping and reporting requirements from a regulated entity. However, the EPA believes it is essential to ensure that the recordkeeping and reporting responsibilities are fulfilled after this transfer occurs. To that end, in this final rule, both the certifying entity and regulated entity will have joint liability for the recordkeeping and reporting requirements covered by a notice submitted under Sec. 59.511(g), such that both would be liable for the failure to keep records or submit reports and for inaccurate records or reports

For more information concerning the aerosol coatings reactivity rule, DOD interested personnel can contact

Ms. J. Kaye Whitfield, EPA's Office of Air Quality Planning and Standards, Phone: 919-541-2509; FAX: 919-541-3470 or e-mail or by e-mail at whitfield.kaye@epa.gov.

Reference: Federal Register, June 23, 2009, Vol. 74, No. 119, pages-29595-29607.

EPA Includes Carbon Nanotubes in SNURs

*By Ariel Rosa,
Environmental Protection Specialist, HTIS*

In the June 24th edition of the Federal Register the U.S. Environmental Protection Agency (EPA) issued a direct final rule and promulgated significant new use rules (SNUR) under Section 5(a) (2) of the Toxic Substances Control Act (TSCA) for 23 chemical substances that are the subject of premanufacture notices (PMN).

According to the EPA, four of these chemical substances, including multi-walled carbon nanotubes (generic) and single-walled carbon nanotubes are subject to TSCA Section 5(e) consent orders issued by the EPA.

Under the SNURs, those who intend to manufacture, import, or process any of these substances for an activity that is designated as a significant new use must notify the EPA at least 90 days before commencing that activity. Once notified, the EPA will evaluate the intended use and, if necessary, prohibit or limit that activity before it occurs.

The rule became effective on *August 24, 2009*, without further notice, unless the EPA receives written adverse or critical comments, or notice of intent to submit adverse or critical comments before *July 24, 2009*. If written adverse or critical comments or notice of intent to submit such comments is received before July 24, 2009, the EPA will withdraw the relevant sections of the direct final rule before its effective date. The EPA will then issue a proposed SNUR for the chemical substance(s) on which adverse or critical comments were received, providing a 30-day period for public comment. For persons intending to import or export any of the chemical substances in this rule, they are subject to the TSCA Section 13 import certification requirements and the export notification provisions of TSCA Section 12(b) as of *July 24, 2009*.

The following information regarding MWCNTs and SWCNTs is listed in the final rule:

PMN Number P-08-177

Chemical name: Multi-walled carbon nanotubes (generic).

CAS number: Not available.

Effective date of TSCA section 5(e) consent order: August 11, 2008.

The basis for TSCA section 5(e) consent order: The PMN states that the generic (non-confidential) use of the substance will be as a property modifier in electronic applications and as a property modifier in polymer composites. The order was issued under section 5(e) (1) (A) (i) and (e) (1) (A) (ii) (I) of TSCA. Based on test data on analogous respirable, poorly soluble particulates and on other carbon nanotubes (CNTs), the EPA believes that the PMN substance might cause lung effects. To protect against this risk, the consent order requires use of a National Institute for Occupational Safety and Health (NIOSH)-approved full-face respirator with N-100 cartridges. Based on physical properties of the PMN substance, the EPA believes it may cause health effects via dermal exposure. To protect against this risk, the consent order requires that workers wear gloves and protective clothing impervious to the chemical substance. The SNUR designates as a "significant new use" the absence of these protective measures.

Toxicity concern: There is a concern for lung health effects based on data for poorly soluble particulates and for other CNTs, and for lung irritation based on particle size.

Recommended testing: The EPA determined that a 90-day inhalation toxicity study in rats with a post exposure observation period of up to 3 months, including bronchoalveolar lavage fluid (BALF) analysis (OPPTS 870.3465 or OECD 413 test guidelines) and certain material characterization data, would help characterize possible effects of the PMN substance. In the consent order, the PMN submitter has agreed not to exceed a specified production volume or production time limit (whichever comes first) without performing these tests.

CFR citation: 40 CFR 721.10155.

PMN Number P-08-328

Chemical name: Single-walled carbon nanotubes (generic).

CAS number: Not available.

Effective date of TSCA section 5(e) consent order: September 15, 2008.

Basis for TSCA section 5(e) consent order: The PMN states that the generic (non-confidential) use of the substance will be as a property modifier in electronic applications and as a property modifier in polymer composites. The order was issued under section 5(e) (1)

(A) (i) and (e) (1) (A) (ii) (I) of TSCA. Based on test data on analogous respirable, poorly soluble particulates and on other carbon nanotubes (CNTs), the EPA believes that the PMN substance might cause health effects. To protect against this risk, the consent order requires use of a NIOSH-approved full-face respirator with N-100 cartridges. Based on physical properties of the PMN substance, the EPA believes it may cause health effects via dermal exposure. To protect against this risk, the consent order required that workers wear gloves and protective clothing impervious to the chemical substance. The SNUR designates as a "significant new use" the absence of these protective measures.

Toxicity concern: There is a concern for health effects based on data for poorly soluble particulates and for other CNTs and for lung irritation based on particle size.

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Reference: Federal Register /Vol. 74, No. 120 /Wednesday, June 24, 2009 /Rules and Regulations.

EPA To Begin Testing Pesticides for Endocrine Disruption

By Ariel Rosa,
Environmental Protection Specialist, HTIS

To work with communities and industries in protecting Americans from harmful exposure to pesticides the EPA has issued the first list of pesticides to be screened for possibly disrupting the endocrine system.

Endocrine disruptors are chemicals that interact with and possibly disrupt the hormones produced or secreted by the human or animal endocrine system, which regulates growth, metabolism and reproduction, causing lifelong health problems.

The EPA will issue test orders to the manufacturers of 67 pesticide chemicals this summer to determine whether their chemicals may disrupt the endocrine systems (estrogen, androgen and thyroid). Testing, conducted through the Endocrine Disruptor Screening

Program (EDSP), will eventually be expanded to cover all pesticide chemicals.

The list was developed on the basis of exposure potential and should not be construed as a list of known or likely endocrine disruptors. The listed pesticide chemicals were selected because there is high potential for human exposure through food and water, residential activity, or agricultural pesticide application.

The revised policies and procedures that the EPA will follow to order testing, minimize duplicative testing, promote equitable cost-sharing, and protect manufacturers' confidential business information were also announced on April 15, 2009..

Reference: www.epa.gov/scipoly/oscpendo.

FDA News

FDA Consumer Advisory on Hydroxycut Products

By Abdul H. Khalid, Chemical Engineer, HTIS

Recently, the US Food and Drug Administration (FDA) issued a consumer advisory on certain Hydroxycut products. Hydroxycut-branded products are nutritional supplements manufactured and marketed by a company named as Iovate Health Sciences Inc. USA.

Hydroxycut-branded products are sold as weight loss items and are taken by many people in the US and other countries worldwide. The FDA issued this advisory because some consumers have experienced liver-related problems. The FDA believes that the consumer should not take unnecessary risk with hydroxycut products that may result in liver damage.

Analyses of individual ingredients and their assessment, toxicology, and product safety of the ingredients nutritional values are important.

According to the FDA, the Agency has received more than 20 reports of serious health problems, ranging from jaundice to liver damage that subsequently required a liver transplant. The FDA has not yet determined which ingredient and/or the dosage is responsible for liver damage. However, the Iovate Health Science Inc. agreed and initiated a voluntary recall of about 14 of its products. Consumers and healthcare professionals are working together to report any adverse side effects of ingredients and/or dosage that are causing liver damage.

Consumers who use hydroxycut dietary supplements and who experience signs of illness associated with liver disease should immediately consult their health care providers. Symptoms of serious liver disease include jaundice (yellowing of the skin or whites of the eyes) and brown urine. Non-specific symptoms of liver disease can include nausea, vomiting, light-colored stools, unusual tiredness, weakness, stomach or abdominal pain, itching, and loss of appetite.

The FDA has also identified several other serious adverse events associated with hydroxycut products, including cases of seizures, rhabdomyolysis (a type of muscle damage that can lead to other dangerous problems, such as kidney failure), and cardiovascular problems, ranging in severity from irregular heart beat to a heart attack. The following products have been voluntarily recalled by Iovate Health Sciences USA, Inc.:

- Hydroxycut Regular Rapid Release Caplets;
- Hydroxycut Caffeine-Free Rapid Release Caplets;
- Hydroxycut Hardcore Liquid Caplets;
- Hydroxycut Max Liquid Caplets;
- Hydroxycut Regular Drink Packets;
- Hydroxycut Caffeine-Free Drink Packets;
- Hydroxycut Hardcore Drink Packets (Ignition Stix);
- Hydroxycut Max Drink Packets;
- Hydroxycut Liquid Shots;
- Hydroxycut Hardcore RTDs (Ready-to-Drink);
- Hydroxycut Max Aqua Shed;
- Hydroxycut 24 and;
- Hydroxycut Carb Control;
- Hydroxycut Natural.

The FDA urges consumers and their health care professionals to report any cases of liver and other injuries that may be related to the use of hydroxycut products or any other dietary supplements. Adverse events associated with the use of dietary supplements should be reported as soon as possible to FDA's Med Watch program by calling their toll-free number, (1-800-332-1088) or through the Internet, web site at: <http://www.fda.gov/Safety/MedWatch/default.htm>

The FDA continues to investigate the relationship between the use of hydroxycut dietary supplements and liver injury. The Agency's investigation includes attempting to determine a biological explanation for the relationship. The Agency will alert consumers, and if

warranted, take additional action as more information becomes available.

Reference: Hydroxycut Products, FDA Consumer Updates at:
<http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm155817.htm>

Kidde Dual Sensor Smoke Alarms Recalled

*By Ariel Rosa,
Environmental Protection Specialist, HTIS*

The U.S. Consumer Product Safety Commission, (CPSC) in cooperation with Walter Kidde Portable Equipment Inc., of Mebane, N.C. announced a voluntary recall of about 94,000 of its Model PI2000 Dual Sensor Smoke Alarms, having determined that an electrostatic discharge can damage the unit, causing it not to warn consumers of a fire.

Kidde has received two reported incidents of smoke alarm malfunctions involving electrostatic discharge during installation. No injuries have been reported.

The units can be identified by two buttons, "HUSH" and "PUSH AND HOLD TO TEST WEEKLY," which are located on the front/center of the alarm. The model number and date code are on the back of the smoke alarm. Only date codes 2008 Aug.01 through 2009 May 04 are included in this recall.

The alarms manufactured in China, were sold at retail, department, and hardware stores and through electrical distributors nationwide from August 2008 through May 2009 for between \$30 and \$40.

Consumers should contact Kidde immediately to receive a free replacement smoke alarm.

Kidde's toll-free number is (877) 524-2086 and it's Web site; www.kidde.com

To report a dangerous product or a product-related injury, call CPSC's Hotline at (800) 638-2772 or CPSC's teletypewriter at (800) 638-8270.

OSHA's Hazard Communication Standard Applies to Pharmaceuticals & Cosmetics

By Philip Saunders, Chemical Engineer, HTIS

As part of the Occupational Safety & Health Administration (OSHA) Hazard Communication

Standard (HCS), as found in 29 CFR 1910.1200, OSHA requires Material Safety Data Sheets (MSDS) be provided to communicate the hazards associated with materials identified as hazardous. The HCS is designed to communicate hazards of chemicals found in the workplace to the employees who may be exposed to them. There is often confusion regarding when the HCS requires an MSDS and when it does not, especially when it comes to pharmaceuticals & cosmetics. Presented here is a basic overview of the HCS as it relates to those two classes of materials.

1910.1200 (g)(1) of the OSHA HCS regulations requires manufacturers and importers to obtain or develop an MSDS for each hazardous chemical they produce or import and for employers to have a copy of an MSDS for each hazardous chemical that is used in their workplace. There are several classes of material that this regulation does not cover. 1910.1200 (b) (6) states that the OSHA HCS does not apply to:

- Drugs in solid form for direct administration to the patient (pills & tablets);
- Cosmetics & drugs that are packaged by the manufacturer for retail sale;
- Drugs and cosmetics intended for use in the workplace such as medications found in a first aid kit or stage cosmetics.

OSHA exempts these products based on their determination that the minimal risk of exposure to the hazardous materials they contain. The HCS also exempts drugs with biological or radiological hazards rather than chemical hazards, though if a pharmaceutical presents a chemical hazard as well as a radiological or biological hazard then the HCS would apply.

Remember, the HCS does not apply to non-hazardous chemicals and no MSDS is required for such materials. Some manufacturers of pharmaceuticals and cosmetics generate an MSDS for a non-hazardous product for reasons other than for compliance with the HCS. This usually happens when the manufacturer decides to generate this type of document to meet customer demand for such information or for product liability reasons. OSHA recommends that the manufacturer put a statement into these documents that indicates that the information is not required for compliance with the HCS.

The HCS does apply to, and an MSDS is required for, all pharmaceuticals that are not in their final form for direct administration to the patient or packaged for retail sale. This includes solid form medication that is intended to be dissolved or crushed for administration to the patient. It also includes liquid pharmaceuticals which must be diluted, repackaged or dispensed from a large container into smaller doses for administration

to the patient. In unusual circumstances, pharmaceuticals that fall under the solid form exemption are occasionally required to be crushed or dissolved for administration to the patient. As long as these products are not designed or intended to be crushed or dissolved, the exemption from the HCS would still apply and no MSDS would be required. Of course, hazardous materials procured by the federal government are also regulated by FED-STD-313. This standard applies to materials covered by the OSHA HCS as well as environmental hazards regulated by the Environmental Protection Agency (EPA), radioactive materials regulated by the Nuclear Regulatory Commission (NRC) and other materials that are considered to be transportation hazards. Pharmaceuticals, cosmetics and toiletries typically have a Federal Stock Class (FSC) that is found on Table II of the standard. An MSDS is not required for Table II materials if there are no hazards associated with the product. Most pharmaceuticals and cosmetics are not considered to be an environmental, transportation or radiological hazard, so the OSHA HCS would still remain as the applicable regulation for determining if an MSDS is required.

Most often, the HCS requires both an MSDS and a Hazard Warning Label (HWL), as prescribed in 1910.1200(f) (1), for a hazardous chemical found in the workplace. One source of confusion when determining if an MSDS is required for a pharmaceutical or cosmetic is that there are instances when a MSDS is required but a HWL is not. OSHA and/or the US Food & Drug Administration (FDA) may regulate pharmaceuticals and cosmetics found in the workplace. The FDA has its own labeling requirements for these products, and OSHA does not require additional HWL information beyond the FDA requirements. If a pharmaceutical or cosmetic contains a hazardous chemical and does not meet the exemption criteria described above, then the HCS will require an MSDS regardless of the HWL requirement for the product.

References:

1. OSHA Standard Interpretation "06/20/1989 - Application of the Hazard Communication Standard to Prescription Drug Products".
2. OSHA Standard Interpretation "12/28/1989 - Clarification on OSHA's Hazard. Communication Standard".
3. OSHA Standard Interpretation "06/11/1991 - The Hazard Communications Standard as It Applies to Employees Who Prepare and Administer Drugs/Medications"
4. OSHA Standard Interpretation "12/30/1992 - OSHA's Hazard Communication Standard"
5. OSHA Standard Interpretation "09/13/1993 - FDA Regulated Drugs That Pose a Hazard Would Be Covered by the HCS"
6. OSHA Standard Interpretation "01/03/1994 - Hazard Communication Standard and Pharmaceuticals"
7. OSHA Standard Interpretation "05/15/1997 - Clarification of the Definition of a Hazardous Chemical and the Requirements for Material Safety Data Sheets".
8. FED-STD-313D – "Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities"

OSHA's "General Duty Clause"

By Abdul H. Khalid, Chemical Engineer, THIS

The use of the "General Duty Clause" for hazards under the US Occupational Safety and Health Act of 1970 (OSH Act) is limited by evidentiary requirements. The Federal Occupational Safety and Health Administration (OSHA) has cited employers for some violations of hazards such as ergonomics hazards or hazards in confined spaces because these hazards were not covered or regulated under Federal OSHA or State OSHAs.

The OSH Act was signed into law on December 29, 1970. The Federal OSHA has the ability to cite employers with respect to workplace hazards under the "General Duty Clause" when the employer failed to provide a workplace free of hazards. The Agency must prove the case with some procedural, technical, and evidentiary requirements. In other words, the use of "General Duty Clause" for hazards is limited and requires documentation and evidence. The "General Duty Clause" is available to cover workplace hazards that are not specifically regulated by the Federal OSHA.

During the 2009 American Industrial Hygiene Conference and Exposition (AIHce), presenter Thomas Halassi, OSHA director for technical support, discussed some issues involved with general ergonomic citations to employers since 2002. The general ergonomics citations were issued by the Agency to workplaces such as nursing homes, warehouses, beverage delivery, and shipbuilding.

Health care industry is the biggest workplace where employers are required to comply with OSHA Act. Many hazards in these facilities are not controlled and need effective solutions and strategies. There are no regulations for manual handling of patients and such workplaces can be cited under the "General Duty Clause". The "General Duty Clause" of the OSH Act of 1970; Section 5 (a) (1) states:

"Each employer shall furnish to each of his employees, employment and a place of employment which are free from recognized hazards that are causing or likely to cause, death or serious physical harm to his

employees.” The “General Duty Clause” may only be issued by the OSHA’s compliance safety health officers (CSHO) when no standard exists. The use of Section 5 (a) (1) depends on the current policy of OSHA Administration and may be used for a known and/or serious hazards. OSHA may issue citations under Section 5(a) (1) with the following conditions:

- There must be a hazard,
- The hazard must be recognized,
- The hazard causes or is likely to cause serious harm or death, and
- The hazard must be correctable.

The “General Duty Clause” does not impose strict liability on employers but make the employers eliminate foreseeable and preventable hazards.

Documents and records must be maintained for various periods such as three days, thirty days, five years, and thirty years under various sections of 29 CFR 1910 and/or others.

The Field Operations Manual is used by the OSHA’s Compliance Safety and Health Officers (CSHO’s) as a useful tool and available on OSHA’s web site. The CSHO prepares and conducts inspections, prepare citations, and assesses penalties. The OSH Act applies to employers and employees. Employer means a person engaged in a business affecting interstate commerce. Federal or state governments are covered under Federal or State regulations. OSHA’s compliance officers protect the safety and health of America’s working men and women. The manual is available online at:

http://www.osha.gov/OshDoc/Directive_pdf/CPL_02-00-148.pdf.

References: 2009 AIHce Safety Abstracts at:

1. <http://www.osha.gov/>.
2. <http://www.aiha.org/abs09/09safety.htm>

Material Safety Data Sheets for Non-Hazardous Materials

By Philip Saunders, Chemical Engineer, HTIS

As a part of the Hazard Communication Standard (HCS), the Occupational Safety & Health Administration (OSHA) requires employers to provide their employees with access to Material Safety Data Sheets (MSDS) for all hazardous materials used in their work environment. The Department of Defense (DOD), for example, complies with this requirement with the online MSDS repository HMIRS, the Hazardous Material Information Resource System.

A misconception that people have about the HCS MSDS requirement is that an MSDS is required for all chemicals and all articles that might contain a hazardous material even when they are considered non-hazardous during storage, transportation or normal conditions of end use. In fact, OSHA discourages the production of MSDS’s for non-hazardous materials and allows employers to discard MSDS’s for non-hazardous chemicals.

In 29 CFR 1910.1200 (g)(8), the OSHA HCS requires that employers “shall maintain in the workplace copies of the required MSDSs for each hazardous chemical, and shall ensure that they are readily accessible”. This means that the HCS MSDS requirement applies only to hazardous materials and the HCS later specifically exempts certain consumer products and non-hazardous materials.

When hazardous materials are sold to the federal government, FED-STD-313 adds an additional layer of requirements beyond those of the OSHA HCS. FED-STD-313 requires an MSDS be provided for any product sold to the federal government that meets the standard’s definition of a hazardous material. This definition encompasses all materials defined as hazardous by the HCS, but it also includes materials that are regulated as environmental hazards by the Environmental Protection Agency (EPA) in 40 CFR as well as products that may present a hazard in transportation and nuclear or radioactive materials regulated by the Nuclear Regulatory Commission (NRC) in 10 CFR. FED-STD-313 lists hazardous and potentially hazardous materials by Federal Supply Class (FSC) on Table I and Table II. Any material with an FSC listed on Table I automatically requires an MSDS regardless of the hazard associated with the product. Materials with an FSC listed on Table II may require an MSDS but only if there is a hazard associated with the product. Even though FED-STD-313 is more encompassing than the OSHA HCS, the fact still remains that if a non-Table I material is exempted by the HCS and is not regulated as an environmental hazard, a transportation hazard, or a radiation hazard then there is no requirement to provide, obtain or retain material safety documentation.

The confusion over the MSDS requirements partially stems from the fact that over the years the purpose of the MSDS has changed as manufacturers began to create MSDS’s for non-hazardous products in addition to hazardous materials. Many of these MSDS’s are not very informative and exist only to indicate that the product is not hazardous. These documents are often created for product liability reasons and/or to respond to customer demand for MSDS related information. In fact, many companies create MSDS-like documents that specifically state that an MSDS is not required for

their product and that the content of the document is provided for information purposes only.

This has led to the generation of MSDS's for products ranging from flammable and corrosive liquids (which are covered by the HCS MSDS requirement) to non-hazardous consumer items (such as light bulbs, disposable batteries, toiletries) and other non-hazardous products (like distilled water or chemical absorbent pads) even when they are specifically exempted in 1910.1200 (b)(5) and present no hazard.

OSHA discourages the generation and transmittal of MSDS's for any other reason than to comply with the HCS but it does not have the authority to prohibit the practice. So it is legal to prepare, distribute and/or retain MSDS's for non-hazardous materials, but they are not required by OSHA and are not necessary to comply with the HCS. Conversely, manufacturers are under no obligation to prepare an MSDS for a non-hazardous or exempted material.

References:

1. OSHA Standard Interpretation "01/25/1995 - The Purpose of Material Safety Data Sheets".
2. OSHA Standard Interpretation "10/28/1996 - OSHA Hazard Communication Standard (HCS) Requirements for Material Safety Data Sheets (MSDS)".
3. FED-STD-313D – "Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities"

OSHA Outlines Ethylene Oxide Monitoring Requirements

*By Ariel Rosa,
Environmental Protection Specialist, HTIS*

Ethylene oxide exposure levels and monitoring requirements are addressed in the Occupational Safety and Health Administration's (OSHA) recently published [Small Business Guide for Ethylene Oxide](#) (OSHA 3359-04). The guidance document helps employers understand the ethylene oxide (EtO) standard and explains how to monitor the air quality in workplaces where EtO is processed, used or handled.

EtO is a colorless, odorless gas, which is both flammable and highly reactive. EtO is used extensively by hospitals and other industries as a sterilizing agent. Among other common products, EtO also is found in antifreeze, detergents, adhesives and spices. Short-term exposure to EtO can cause difficulty breathing and nausea, among other symptoms. Long-term exposure over many years may cause cancer, reproductive effects, genetic changes, and damage to the nervous system (LaMontagne, et al, 1990).

The document includes clarification of the various types of EtO exposure monitoring, lists and explains the exposure levels used by OSHA and provides an outline of what employers should do when monitoring shows EtO exposure levels exceed the allowable limits.

"Because ethylene oxide cannot be detected by sight or smell, workers can be exposed to dangerous levels and not realize it," said acting Assistant Secretary of Labor for OSHA Jordan Barab. "Understanding OSHA's EtO standard is vital to ensuring that employers know how to measure exposure levels so that workers are not exposed to potentially serious illnesses".

All of the required actions found in the document are based on OSHA's EtO standard (**29 CFR 1910.1047**).

Reference: www.osha.gov.

OSHA Focuses on Federal Worker Safety

*Reprint submitted by
Beverly Howell and Ariel Rosa, HTIS*

The U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) announced that it is continuing its nationwide program to emphasize workplace safety and health for federal workers and for those contractors whose work is supervised on a daily basis by federal agency personnel.

The Federal Agency Targeting Inspection Program (FEDTARG09) directive provides the procedures OSHA field staff must follow when conducting safety inspections at some of the most hazardous federal workplaces. The federal agencies targeted have experienced a large number of lost time injuries based on data from their fiscal 2008 Office of Workers' Compensation Programs reports.

"OSHA's mission of protecting worker safety doesn't begin and end with private industry," said acting Assistant Secretary of Labor for OSHA Jordan Barab. "It also extends to those who work in federal agencies. This directive is part of OSHA's continued efforts in assuring that the men and women who work to improve the lives of American citizens are provided safe working environments."

This targeted inspection program was developed in 2008 in response to a Government Accountability Office audit report. Field inspectors conducted 109 inspections of high hazard federal worksites during 2008 and found multiple violations of OSHA's safety and health standards. FEDTARG09 continues OSHA's commitment to inspect the occupational safety and

health programs of federal organizations. For more information on the directive, visit http://www.osha.gov/OshDoc/Directive_pdf/FAP01_09-04.pdf.

OSHA's Office of Federal Agency Programs (FAP) serves as the point of contact for the federal sector regarding occupational safety and health issues. The FAP's purpose is to ensure that each federal agency is provided with guidance for implementing an effective occupational safety and health program. In addition, the FAP provides the president with progress reports on the safety and health programs of federal agencies.

Under the Occupational Safety and Health Act of 1970, OSHA's role is to promote safe and healthful working conditions for America's working men and women by setting and enforcing standards, and providing training, outreach and education. For more information, visit <http://www.osha.gov>.

Reference: OSHA National News Release, US Department of Labor, Office of Communications, Release Number: 09-718-NAT, June 24, 2009.

The Role of Assigned Protection Factors & Respiratory Protection Standard

By Abdul H. Khalid, Chemical Engineer, HTIS

Recently, the US Occupational Safety & Health Administration (OSHA) issued a new publication titled, "Assigned Protection Factors for the Revised Respiratory Protection Standard". This publication provides guidance on the role of assigned protection factors (APFs) in the selection and use of respiratory protection.

Under the Occupational Safety and Health Act (OSHA), employers are responsible for the safety and health of their employees at workplaces. This publication is a useful tool to any employer who needs to establish and implement a respiratory protection program under the revised respiratory protection standard (29 CFR 1910.134 (d)).

This publication defines and provides requirements for the APFs for the Revised Respiratory Protection Standard including guidance on APFs and maximum use concentrations (MUCs). The definitions of APFs and MUCs in this publication are: **Assigned Protection Factor (APF)** means the workplace level of respiratory protection that a respirator or class of respirators is expected to provide to employees when the employer implements a continuing, effective respiratory protection program as specified in respiratory protection program, and **Maximum Use**

Concentration (MUC) means the maximum atmospheric concentration of a hazardous substance from which an employee can be expected to be protected when wearing a respirator, and is determined by the assigned protection factor of the respirator or class of respirators and the exposure limit of the hazardous substance.

The MUC usually can be determined mathematically by multiplying the assigned protection factor specified for a respirator by the permissible exposure limit (PEL), short term exposure limit, ceiling limit, peak limit, or any other exposure limit used for the hazardous substance. The MUC is the upper limit at which the class of respirator is expected to provide protection. Whenever the exposures approach the MUC, then the employer should select the next higher class of respirators for the employees. Employers must not apply MUCs to conditions that are immediately dangerous to life or health (IDLH); instead, they must use respirators listed for IDLH conditions in paragraph 29 CFR 1910.134 (d) (2) of this standard. When the calculated MUC exceeds the IDLH level for a hazardous substance, or the performance limits of the cartridge or canister, then employers must set the maximum MUC at that lower limit.

The new APF table is referenced on page 14 of this publication and the employers must select respirators according to APFs, using Table I (29CFR 1910.134 (d) (3) (i) (A)). Employers must use the assigned protection factors listed in Table I to select a respirator that meets or exceeds the required level of employee protection. When using a combination respirator (e.g., airline respirators with an air-purifying filter), employers must ensure that the assigned protection factor is appropriate to the mode of operation in which the respirator is being used.

For hard copy of this document, call OSHA at 202-693-1888 or go to OSHA's web site at: <http://www.osha.gov/Publications/3352-APF-respirators.html>.

Reference: OSHA publication # 3352-02-2009 titled, "Assigned Protection Factors for the Revised Respiratory Protection Standard", web site at: <http://www.osha.gov/Publications/3352-APF-respirators.html>.

OSHA to Begin Evaluation of Voluntary Protection Programs

*By Ariel Rosa,
Environmental Protection Specialist, HTIS*

The Department of Labor's Occupational Safety and Health Administration (OSHA) recently announced

that it will address problems identified in its Voluntary Protection Programs (VPP) in response to a new Government Accountability Office (GAO) report, GAO-09-395 - OSHA's Voluntary Protection Programs: *Improved Oversight and Controls Would Better Ensure Program Quality* (May 2009).

The report recommends improved oversight and additional controls to ensure participating companies maintain effective workplace safety and health management systems.

OSHA also has announced that it will conduct a comprehensive evaluation of its VPP and Alliance Program to determine how the agency should best allocate its resources among cooperative programs, enforcement and the agency's other activities. Acting Assistant Secretary of Labor for OSHA Jordan Barab said he agrees with recommendations made in the GAO report. GAO's analysis recommended that OSHA strengthen the program's oversight activity, documentation and other aspects of program operations and impact to ensure consistency and adherence to existing OSHA policies and procedures. VPP participation encompasses more than 2,200 worksites covering more than 800,000 workers. "We will thoroughly review the VPP and Alliance Program to determine their effectiveness as well as review the programs' roles in helping the agency promote the safety and health of America's workers," said Barab.

"The report noted that OSHA had not fully evaluated the effectiveness of its cooperative programs and was therefore 'limited in its ability to make a sound decision about how best to allocate its resources,'" said Barab. "Our evaluation of these programs in the context of OSHA's limited resources will help ensure that OSHA will be able to reprioritize these resources in the most effective manner."

To address the most recent GAO report's findings and recommendations about the VPP, OSHA will review and address problems including program management and oversight policies and procedures;

documentation policy for actions taken in response to fatalities and serious injuries at VPP sites; and goals and performance measures for the VPP and internal OSHA controls that ensure consistent compliance with VPP policies by the agency's regional offices.

Reference:

1. <http://www.osha.gov>
2. GAO report <http://www.gao.gov/products/GAO-09-395>

A Guide to Developing a Hazardous Materials Training Program

*By Ariel Rosa,
Environmental Protection Specialist, HTIS*

"What You Should Know: *A Guide To Developing A Hazardous Materials Training Program*", is a new publication that was recently posted on the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA) webpage; www.phmsa.dot.gov/hazmat.

This guidance was prepared under a partnership agreement between the PHMSA and the Dangerous Goods Advisory Council (DGAC) with input from the Dangerous Goods Symposium for Instructors and the hazmat community.

The 31 pages document explains:

- The training requirements in the Hazardous Materials Regulations,
- Identifies those employees who must be trained, and
- Provides a tool to help hazmat employers determine what type of training and training environment may be best for their employees.

Reference: www.phmsa.dot.gov/hazmat.



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