1. PURPOSE

To prevent injury or illness caused by use, handling, or storage of hazardous chemicals at Associated Asphalt facilities by:

- informing affected personnel of the hazards;
- properly handling, storing, & disposing of all materials;
- taking appropriate emergency actions; and
- applying protective measures, including engineering controls, administrative controls and PPE.

Awareness training, Safety data sheets (SDS), labels, signs and pictograms will be used to convey this information.

2. SCOPE

2.1 Scope – This policy applies to all employees, (temporary and permanent), and contractors at Associated Asphalt facilities that may work with hazardous chemicals or work in areas where they may be present.

2.2 Exclusion – This procedure does not apply to facilities that receive products from Associated Asphalt and does not address generation of safety data sheets for users of Associated Asphalt products.

3. RESPONSIBILITY

The EHS Director is responsible for implementing and maintaining this procedure. Terminal Managers or their designees are responsible for periodic training which is necessary when:

- new materials are introduced;
- significant changes are made to existing chemicals or
- employees/contractors are hired after initial scheduled training has been completed.

Terminal Managers or their designee shall inform employees/contractors of the location(s) of SDS in their terminal.

4. DEFINITIONS

The following are for use in this policy and for use in reading SDS.

4.1 ***"Absorption"*** – The movement of a hazardous chemical through the skin into the blood stream.

4.2 ***"Acute"*** – Short term effect to exposure of a chemical.

4.3 ***"Administrative Controls"*** – A written procedure outlining safe work practices for a particular task. Administrative Controls **DO NOT eliminate the hazard.**

4.4 ***"Associated Asphalt Contact"*** – An Associated Asphalt employee responsible for bringing a contractor on site. Each contractor must have an Associated Asphalt Contact.

4.5 ***"Ceiling"*** – Maximum permitted exposure level to a chemical

4.6 ***"Chronic"*** – Long term effect to exposure of a chemical.

4.7 ***"Concentration in PPM"*** – Parts per Million, concentration is a volumetric measure.

4.8 ***"Contractor"*** - Any person working at the Associated Asphalt who is not an Associated Asphalt Employee.

4.9 ***"Engineering Controls"*** – A devices or materials of construction that provides a barrier between personal and a specific hazard. Examples – ventilation, sound absorbing material, machine guards, etc.

4.10 ***"Globally Harmonized System"*** Or GHS – Adopted by OSHA, is a uniform system for classifying chemicals, making it easier to identify & communicate hazards in the work place.

4.11 ***"Hazard Categories"*** – Found in section 2 of the SDS and are numbered 1 – 4, where 1 is more severe, and 4 is less severe. This is ***opposite*** of the numbers found on the NFPA 704 diamond.

4.12 ***"Hazard Statements"*** – Standardized phrases describing the nature and degree of the hazard.

4.13 ***"Incompatible Materials"*** – Materials that would react, perhaps violently, if mixed. These materials should not be stored next to each other.

4.14 ***"Ingestion"*** – Exposure by swallowing a substance.

4.15 ***"Inhalation"*** – Exposure by breathing a vapor, dust or mist.

4.16 ***"Lower Explosive Limit"*** – **LEL** – Concentration at which the mixture is too lean to burn or explode. Fire or explosion will occur between the LEL & UEL.

4.17 ***"NFPA 704 Diamond"*** – A standard method to communicate hazards using color coded fields – Blue for health, Red for flammability, Yellow for reactivity and White for specific hazards, if any. Numbering from 1 – 4 where 1 is less severe and 4 is more severe.

NOTE: **The NFPA numbering system is opposite of that used by the GHS system, where 1 is more severe and 4 is less severe. GHS hazard category numbers can be found on the SDS sheet in section 2**

4.18 ***"Precautionary Statements"*** – Standardized phrases describing recommended measures to take to minimize or prevent adverse effects from exposure.

4.19 ***"Permissible Exposure Limit"*** – **PEL** – Maximum safe level of chemical exposure in a work day, based on 8-hour exposure. See TLV & TWA.

4.20 ***"Personal Protective Equipment"*** – **PPE** – Devices designed to protect personnel from chemical or physical hazards in the work place, when fitted and worn as intended. For example, head, eye, face, hand, body, & foot protection. **PPE DOES NOT ELIMINATE A HAZARD**

4.21 ***"Pictogram"*** – A black symbol placed on a white background surrounded by a red border, used to quickly depict a specific hazard. Nine standard pictograms are used in the GHS.

4.22 ***"Reactivity"*** – The ability of materials to combine, sometimes violently, producing high temperatures, fire or explosions. Polymerization is a form of reaction.

4.23 ***"Safety Data Sheet"*** – **SDS** – Consists of 16 standard sections, always in the same order. The SDS includes critical information on a chemical including manufacturer

contact information; emergency contacts; physical properties; safe storage, handling, & disposal methods; exposure limits; recommended PPE; etc.

4.24 **"*Short Term Exposure Limit*" – STEL –** Safe, uncontrolled exposure to a chemical, higher than the acceptable long term rate, for periods no more than 15 minutes/hour. Each such exposure must be separated by one hour at or below the TWA.

4.25 ***"Signal Word"*** – When required indicates the severity of the hazard (**Danger** – more severe; **Warning** – less severe). In some cases, no signal word may be required.

4.26 ***"Stable Materials"*** – Those that will not react or react very slowly when exposed to temperature extremes or other materials.

4.27 ***"Threshold Limit Value"*** – **TLV** – A level of exposure to a chemical believed to be safe, causing no ill effects to a worker, if unprotected, each day throughout a lifetime of work. Based on an 8-hour work day, 5 days per week. See PEL & TWA

4.28 ***"Time Weighted Average"*** – **TWA** – An average chemical exposure calculated over 8 hours. Based on measurements over a time period that could be more or less than 8 hours. Will be adjusted to 8 hours. Considered a safe uncontrolled, exposure level. See PEL & TLV.

4.29 ***"Upper Explosive Limit"*** – **UEL** – Concentration at which the mixture is too rich to burn or explode. Fire or explosion will occur between the LEL & UEL.

5. PROCEDURE

5.1 Records and Access

5.1.1 Hazardous Chemical List

The Terminal Manager or his designee will prepare and maintain a list of all hazardous chemicals and products used or produced at each facility. This list must be updated annually and when new chemicals are added or deleted. The list must be maintained in a location readily available to employees.

5.1.2 SDS

The Terminal Manager or his designee is responsible for maintaining an SDS for each hazardous material kept on site. SDS will be kept in a location accessible to all contractors and Associated Asphalt employees. SDS shall be kept on site while the material is present and for 30 years after the material is no longer kept on site. If the material is no longer kept on site, mark the SDS "INACTIVE" in legible red ink.

5.2 New Chemicals and Procurement

Any person responsible for procuring hazardous chemicals shall ensure that:

i. Deliveries are not accepted until an SDS have been provided, reviewed and hazards associated with managing the product are understood.

ii. A copy of the SDS is placed in the appropriate site SDS file.

5.3 Labeling Requirements

5.3.1 Containers

Container labels will be affixed to all chemical containers purchased and shipped into the facility from outside suppliers. These labels must not be removed, defaced or otherwise made illegible while material remains in the containers. These labels must be compliant with the GHS as specified in 29 CFR 1910.1200 (see the EHS Department for assistance, if needed) and display:

a. The name of the material **(Product Identifier)**

b. Appropriate hazard warnings **(Pictograms, Hazard Statement and Signal Word,** as applicable).

c. Recommended measures to be taken to minimize/prevent adverse effects of exposure due to improper handling, use, storage, or disposal. **(Precautionary Statement)**

d. The name, address, and emergency phone number of the manufacturer, importer, or other responsible party. **(Supplier Identification)**

NOTE: All secondary containers MUST be labeled!

5.3.2 Secondary Container Labels

Currently, labels on chemical containers used internally, (for chemicals transferred from the shipping container to end use containers), must include, at minimum:

a. The chemical name or code linking back to the SDS sheet

b. Appropriate hazard warnings

NOTE: An employee MUST be able to understand the hazards connected with the chemical from the information contained on this label.

5.3.3 Piping Systems

Pipe marking/labeling will be updated throughout the company as existing markings need to be replaced or additional labels are added according to this guide:

b. Labels/markings should be appropriately sized for the OD of the pipe such that they can be read from 25 feet away.

c. Background should be yellow with black block lettering & a flow direction arrow. Appropriate stenciling may be used in lieu of separate labels.

d. Piping should be marked within 2 feet of valves & pumps, and intervals of not more than 25 feet.

The Terminal Manager or designee is responsible for informing employees of the contents in unmarked piping systems. Depending on the terminal, material found in unmarked piping may include:

a. Liquid asphalt

b. Steam
c. Condensate
d. Hot oil
e. Natural gas
f. #2 fuel oil, kerosene, or solvent;
g. Various asphalt additives
h. Water

5.3.4 Tanks

Tank markings/labels must include the following information visible from 25 feet minimum: (contact the EHS department for size and color information.)

a. Tank number
b. Capacity in gallons
c. Contents
d. Hazard warnings – Currently by using the NFPA 704 "diamond"

5.3.5 Special Considerations

The following hazardous substances have specific additional labeling requirements (contact the EHS department or see the References section for regulatory listings):

a. Lead
b. Asbestos (contact EHS before disturbing any suspected asbestos-containing materials).
c. PCB (contained in fluorescent light ballasts and electrical transformers manufactured before 1977).

6.0 TRAINING

6.1 Training of New Employees - Initial training shall be given to newly hired employees within the first 90 days of employment, if practical. Until trained, new employees are not authorized to handle hazardous materials.

6.2 Who Will Conduct Training? - Training will be conducted by the Terminal Manager, EHS department, or other competent person.

6.3 What is the Subject Matter? – Employees will be trained in the following topics:

i. A review of this Policy.
ii. Location of the policy and how to access it.
- On the company intranet as part of the Employee Handbook
- In the terminal hard copy of the Handbook

iii. Names of hazardous chemicals present on site; where & how they are used, stored and held for disposal/recycling, if applicable.
iv. Location of SDS sheets.
v. How to read chemical labels & SDS sheets.

- Under the GHS, the SDS has been standardized to include 16 sections with information placed in the same order on any and all SDS sheets from any manufacturer.
- A series of nine pictograms are used in conjunction with written hazards to quickly alert employees to significant hazards.

vi. Physical & health effects of hazardous chemicals used;
vii. How to recognize a spill or release of a particular chemical.
viii. A review of how to prevent or reduce exposure using existing engineering controls, established work practices (administrative controls), and/or PPE;
ix. Emergency procedures to follow in the event of an exposure.

6.4 Quiz - Training will be documented along with a written quiz to demonstrate understanding of the material. Questions will be thoroughly discussed to help insure understanding. Contact the EHS department for assistance, if needed.

6.5 Training Records - Records of training will be kept on site at each terminal.

7.0 CONTRACTORS

Contractors working at Associated Asphalt must obtain approval for all hazardous chemicals prior to bringing them onto company property. The approval process requires submission of an SDS and the approval form and procedure outlined in Appendix A.

8.0 AUDITS

Annually, the EHS Department, the Terminal Manager, or his designee shall review compliance with this procedure to ensure that:

x. The chemical list is accurate and up-to-date
xi. An SDS is kept on file for each entry on the chemical list and SDS are accessible to all employees and contractors.
xii. Employees and contractors receive proper training on material hazards – refer to Section 6, and that training is effective.
xiii. A process is in place and effective to address the addition of new hazardous chemicals.
xiv. Site labeling practices adhere to Section 5.3

Audit findings shall be shared with the EHS Director.

9.0 REFRENCES

9.1 Regulatory References

OSHA 29 CFR § 1910.1200 Hazard Communication
OSHA 29 CFR § 1910.1025 Lead
OSHA 29 CFR § 1910.1001 Asbestos

9.2 Pictograms


Oxidizers


Flammables


Explosives


Acute Toxicity


Corrosives


Gas Under Pressure


Carcinogen


Irritant

APPENDICES

Appendix A – Material Approval Form


Appendix A - Material Approval Fo

REVISION LOG

Date	Revision