

## Appendix A

### Material Safety Data Sheet

#### **Introduction**

No matter where you deploy, chances are you will use a HM. You should know the hazards associated with the materials you use. Environmental and safety laws require chemical manufacturers to provide this information on a form called a Material Safety Data Sheet (MSDS). Important information about the HMs you use is listed on this form. There are various versions of the MSDS, however each version contains the same basic information. There should be one of these forms for every chemical in each area where HMs are located.

#### **Material Safety Data Sheet Contents**

MSDSs give you the details on the dangers associated with HMs. The MSDS also provides you with information on safety procedures to use when handling HMs or when faced with an emergency situation.

---

With this information you can

- Protect yourself
- Protect your buddies
- Store materials safely
- REACT to spills correctly.

Although they contain technical information, you do not need to be an expert to get the information you need. This handbook will show you where to get important information. The following pages show sections of an actual MSDS pulled from the internet. In this case, the MSDS is for an oil product.

---

#### **Identity Information**

In case you need more information than the MSDS contains, the identity section gives you the name and address of the company that makes the HM. It also includes the phone numbers to call for information in an emergency.

SHELL OIL — AEROSHELL OIL W-120

MATERIAL SAFETY DATA SHEET

FSC: 9150

NIIN: 00F000568

Manufacturer's CAGE: 54527

Part No. Indicator: A

Part Number/Trade Name: AEROSHELL OIL W-120

---

General Information

---

Company's Name: SHELL OIL COMPANY

Company's Emerg Ph #: 713/473-9561

Record No. For Safety Entry: 001

Tot Safety Entries This Stk#: 001

Date MSDS Prepared: 01JAN85

---

### Hazardous Ingredients

This section tells you what the material's hazardous ingredients, chemical I.D. and common names are. Worker exposure limits are also listed in this section.

---

#### Ingredients/Identity Information

---

Proprietary: NO

Ingredient: DISPERSANT

Ingredient Sequence Number: 01

NIOSH (RTECS) Number: 1001523DA

Proprietary: NO

Ingredient: ANTIOXIDANT

Ingredient Sequence Number: 02

NIOSH (RTECS) Number: 1000125AO

Proprietary: NO

Ingredient: MINERAL OIL (EXPOSURE REGULATED AS 'OIL MIST')

Ingredient Sequence Number: 03

NIOSH (RTECS) Number: PY8030000

CAS Number: 8012-95-1

OSHA PEL: 5 MG/M3

---

### Physical / Chemical Characteristics

This section contains information to help you identify the substance (such as its appearance and odor). It also contains information about whether the HM dissolves or floats in water, and its boiling point (BP).

The BP tells you whether the product will produce vapors at room temperature. If the number is lower than 70°F vapors are a problem and you should use the product in a well ventilated area or wear a respirator.

If the weight of the HM (also known as specific gravity) is defined as less than 1, the product will float in water while a number greater than 1 indicates the product will sink. This is import to consider for fire fighting purposes.

Vapor density tells you whether the fumes from the product will rise to the ceiling (numbers less than 1) or sink to the floor (numbers greater than 1). Products with vapor pressures greater than 10 mm are an explosive hazard.

---

#### Physical/Chemical Characteristics

---

Appearance And Odor: AMBER COLORED OIL, SLIGHT ODOR. Boiling Point:>600;

Specific Gravity:1.0003 Solubility In Water: INSOLUBLE; Vapor Density: >1

---

#### Fire / Explosion Hazard Data

This section tells you how to REACT in case of a fire or explosion. It lists things such as fire-fighting equipment and procedures required in case of fire. You should carefully read the information on flash point. The flash point is the temperature at which the material could ignite if a spark is present.

---

#### Fire and Explosion Hazard Data

---

Flash Point: 510F, C.O.C.

Extinguishing Media: DRY CHEMICAL TYPE PREFERRED.

Special Fire Fighting Proc: NONE

Unusual Fire And Expl Hazrds: NONE

---

#### Reactivity Data

Some things just do not mix well! This section informs you about dangerous chemical reactions (such as explosion, corrosion, or fire) which could occur if the HM is combined with another substance. This section tells you which substances and situations to avoid when storing or using HMs.

---

#### Reactivity Data

---

Stability: YES

Hazardous Decomp Products: CARBON MONOXIDE CAN BE FORMED DURING COMBUSTION.

Hazardous Poly Occur: NO

---

### **Spill or Leak Procedures**

This section tells you what to do if a HM spills or leaks. It includes equipment and procedures to use for cleaning up spills and leaks. This also includes how to dispose of the substances after clean up.

---

Precautions for Safe Handling and Use

---

Steps If Matl Released/Spill: ABSORB WITH CLAY, DIATOMACEOUS EARTH, OR OTHER INERT MATERIAL.

Waste Disposal Method: CONTROLLED BURNING.

Precautions-Handling/Storing: NO SPECIAL

---

### **Health Hazards Data**

This section informs you how HMs can enter your body (such as through inhaling, skin contact or ingestion). The threshold limit value (TLV) tells you how hazardous the product is and whether the product requires special ventilation. The letters PPM stand for Parts Per Million. Generally the lower the ppm number the more hazardous the product is to your health.

TLVs greater than 100 ppm are generally safe to use and store indoors, while those with numbers less than 100 ppm require ventilation systems or can only be used and stored outside.

---

Health Hazard Data

---

Signs/Symptoms Of Overexp: SLIGHT IRRITATION TO EYES AND SKIN.

Emergency/First Aid Proc: SKIN: REMOVE OIL BY WIPING OR APPLYING WATERLESS

HAND CLEANER, FOLLOWED BY WASHING WITH SOAP

ACGIH TLV: 5 MG/M3/10 STEL;9192

---

### **Special Protection Information**

This section provides information on how you can protect yourself (and other soldiers) from exposure to hazardous materials.

---

Control Measures

---

Respiratory Protection: NONE NORMALLY REQUIRED.

Ventilation: AS REQUIRED IF MIST IS BEING GENERATED, LOCAL EXHAUST

Protective Gloves: NOT NEEDED

Eye Protection: GOGGLES IF BEING SPRAYED

Suppl. Safety & Health Data: MANUFACTURER STATES AEROSHELL OIL W-120 IS A MINERAL OIL WHICH CONTAINS SMALL AMOUNTS OF ANTIOXIDANT AND DISPERSANT. IT IS NOT HAZARDOUS BY U.S. DEPT OF LABOR DEFINITION.

---

### Special Handling and Storing Precautions

This section tells you how to handle, store, and transport HMs.

---

### Disposal Data

---

Disposal Data Review Date: 90016

Rec # For This Disp Entry: 01

Tot Disp Entries Per NSN: 001

Landfill Ban Item: YES

Disposal Supplemental Data: MANUFACTURER STATES AEROSHELL OIL W-120 IS A MINERAL OIL WHICH CONTAINS SMALL AMOUNTS OF ANTIOXIDANT AND DISPERSANT. IT IS NOT HAZARDOUS BY U.S. DEPT OF LABOR DEFINITIONS. IN CASE OF ACCIDENTAL EXPOSURE OR DISCHARGE, CONSULT HEALTH AND SAFETY FILE FOR PRECAUTIONS.

1st EPA Haz Wst Name New: NOT REGULATED

1st EPA Haz Wst Char New: NOT REGULATED BY RCRA

1st EPA Acute Hazard New: NO

---

### Conclusion

All MSDSs do not look alike. There are various versions of the MSDS form, however, each version contains the same basic information. The MSDS provides you with the most important information you need to know concerning the hazards of a particular HM. You should read the MSDS before you start any job using HMs. You should also know where to find the MSDSs for the HMs you use in your work area.