1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: Surpass* 20G Herbicide

COMPANY IDENTIFICATION:
Dow AgroSciences
9330 Zionsville Road
Indianapolis, IN 46268-1189

2. COMPOSITION/INFORMATION ON INGREDIENTS:

Acetochlor: 2-chloro-2'-methyl-6'-ethyl-N-ethoxy-methylacetanilide
CAS # 034256-82-1 20%

Other Ingredients, Total, Including
Dichlormid CAS # 037764-25-3
Clay (contains crystalline silica) CAS # 001302-78-9
CAS # 014808-60-7
Including 80%

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not ‘Hazardous’ per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

3. HAZARDOUS IDENTIFICATIONS:

INHALATION: Dust may cause irritation of the upper respiratory tract (nose and throat) and lungs.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Acetochlor has been reported to cause effects on the following organs in animals: blood, central nervous system, kidney, liver, testes, respiratory tract, and eyes. Dichlormid has been reported to cause effects on the following organs: central nervous system, liver, and muscles. For the clay, repeated excessive exposure to crystalline silica may cause silicosis, a progressive and disabling disease of the lungs. Some evidence suggests that kidney effects may result from excessive exposures also.

CANCER INFORMATION: Acetochlor has caused cancer in laboratory animals. Dichlormid has caused cancer in laboratory animals. Commercial clay may contain crystalline silica, which is listed as a carcinogen by IARC and NTP. Crystalline silica has been shown to cause cancer in laboratory animals.

TERATOLOGY (BIRTH DEFECTS): Acetochlor and dichlormid did not cause birth defects in animals; other fetal effects occurred only at doses toxic to the mother. Crystalline silica did not cause birth defects or any other fetal effects in laboratory animals.

REPRODUCTIVE EFFECTS: In laboratory animal studies on acetochlor, effects on reproduction were seen only at doses that produced significant toxicity to the parent animals. Dichlormid did not interfere with reproduction in animal studies.

4. FIRST AID:

EYES: Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

SKIN: Prolonged contact may cause skin irritation with local redness. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Has caused allergic skin reactions when tested in guinea pigs. Has caused allergic skin reactions in humans.

INGESTION: Low toxicity if swallowed. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. The oral LD₅₀ for rats is >2000 mg/kg.

POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

SKIN: Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items, which cannot be decontaminated, including leather articles such as shoes, belts, and watchbands.
INGESTION: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

INHALATION: Move person to fresh air; if effects occur, consult a physician.

NOTE TO PHYSICIAN: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES:

FLASH POINT: Not applicable
METHOD USED: Not applicable

EXTINGUISHING MEDIA: Water fog, alcohol foam, carbon dioxide, dry chemical, or halogenated agents.

FIRE-FIGHTING EQUIPMENT: A self-contained breathing apparatus and full protective clothing must be worn in fire conditions.

6. ACCIDENTAL RELEASE MEASURES:

ACTION TO TAKE FOR SPILLS/LEAKS: Wear suitable protective clothing and eye protection to prevent skin and eye contact. Sweep up small spills and shovel into an open drum. Wash exposed body areas thoroughly after handling. Report large spills to Dow AgroSciences at 800-992-5994.

7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep out of reach of children. Avoid contact with eyes and skin. Keep away from food, drink and animal feeding stuffs. Exercise due caution to prevent damage to or leakage of the container. Keep container tightly closed and store in a cool, dry well-ventilated area. Do not store or heat this material above 180°F (82°C). Store in unpainted carbon-steel container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

EXPOSURE GUIDELINES:
Acetochlor: Dow AgroSciences Industrial Hygiene Guide is 0.1 mg/M^3.
Silica, Crystalline: ACGIH TLV is 0.1 mg/M^3 (respirable) for tripoli and fused silica, 0.05 mg/M^3 (respirable) for cristobalite, tridymite, and quartz. Quartz has an A2 designation. OSHA PEL is (30 mg/M^3)/(%SiO_2 + 2) total dust, (250 mppcf)/(%SiO_2 + 2) respirable for quartz, tripoli, and fused silica; the value for cristobalite and tridymite is 1/2 the value calculated from the respirable dust formula for quartz.

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

EYE/FACE PROTECTION: Use safety glasses.

SKIN PROTECTION: Use protective clothing chemically resistant to this material. Selection of specific items such as faceshield, gloves, boots, apron or full-body suit will depend on operation. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items, which can not be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guidelines. If respiratory irritation is experienced, use a NIOSH approved air-purifying respirator.

APPLICATORS AND ALL OTHER HANDLERS: Refer to the product label for personal protective clothing and equipment.
9. PHYSICAL AND CHEMICAL PROPERTIES:

- BOILING POINT: Not applicable
- SPECIFIC GRAVITY: 45 – 49 lb/cu ft
- VAPOR PRESSURE: Not applicable
- SOLUBILITY IN WATER: Not determined
- APPEARANCE: Tan-brown granule
- ODOR: None
- pH: 6.4

10. STABILITY AND REACTIVITY:

STABILITY: (CONDITIONS TO AVOID) Stable under normal storage conditions. Decomposes at 180°F (82°C) with heat evolution. Rapid exothermic decomposition may occur at temperatures above 212°F with a generation of toxic and flammable gases. Exothermic decomposition may create an explosion hazard if the material is confined in a container or a vessel.

INCOMPATIBILITY: Oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: If product is involved in a fire, toxic and flammable gases along with carbon dioxide and carbon monoxide may be formed.

HAZARDOUS POLYMERIZATION: Not known to occur.

11. TOXICOLOGICAL INFORMATION:

MUTAGENICITY: Acetochlor was negative in some in-vitro mutagenicity studies and positive in others. Animal mutagenicity studies were predominantly negative. For dichlormid and the clay component, in-vitro mutagenicity studies were negative. Crystalline silica was negative in some in-vitro mutagenicity studies and positive in others.
MATERIAL SAFETY DATA SHEET

SURPASS* 20G HERBICIDE

13. DISPOSAL CONSIDERATIONS:

Do not contaminate ponds, waterways or ditches with chemical or used containers. Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Dispose of in accordance with all local, state, and federal requirements. Remove all product residues from container and puncture or otherwise destroy empty container before disposal.

14. TRANSPORT INFORMATION:

U.S. DEPARTMENT OF TRANSPORTATION INFORMATION:

This material is not regulated for transportation.

15. REGULATORY INFORMATION:

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer’s responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

U.S. REGULATIONS

SARA 313 INFORMATION: To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA “Hazard Categories” promulgated under Section 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard
A delayed health hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

OSHA HAZARD COMMUNICATION STANDARD: This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains a chemical(s) know to the State of California to cause cancer. The chemicals are acetochlor and crystalline silica.

STATE RIGHT-TO-KNOW: This product is not known to contain any substances subject to the disclosure requirements of

New Jersey
Pennsylvania

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA OR SUPERFUND): To the best of our knowledge, this product contains no chemical subject to reporting under CERCLA.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

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<th>CATEGORY</th>
<th>RATING</th>
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16. OTHER INFORMATION:

MSDS STATUS: Revised Sections: 2, 3, 4, 7, 8, 10, 11, 12, 14, & 15
Reference: DR-0367-7698
Replaces MSDS Dated: 5/8/01
Document Code: D03-138-002
Replaces Document Code: D03-138-001

The Information Herein Is Given In Good Faith, But No Warranty, Express or Implied, Is Made. Consult Dow AgroSciences for Further Information.

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