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5785-58

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 23 1998

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Pamela J. Bricker
Regulatory Specialist
Great Lakes Chemical Corporation
P.O. Box 2200
West Lafayette, IN 47906

SUBJECT: Review of Revised Basic Formula and Label Amendment to
Update Environmental Hazards Statement per EPA/SRRD
Chloropicrin
EPA Reg. No. 5785-58
Your Submissions Dated 04/22/97 and 12/12/97

Dear Ms. Bricker:

The Agency has completed its review of the above submissions. Please note the following points from each review:

1. You must list the chemical purity (which is the same as the nominal concentration) of each technical source in Columns 10 and 13(b) of the Confidential Statement of Formula (CSF). The limits in Columns 14(a) and 14(b) should be within the standard limits of 40 CFR §158.175, i.e. $\pm 3\%$. For each active ingredient, a footnote should be written on the CSF indicating the percentage needed to obtain a nominal concentration of 99%. Examples: for EPA Reg. No. 61219-1: "Use 102.5% for a 99% nominal concentration."; for 7747-1: "Use 100% for a 99% concentration."; for 62341-15: "Use 99.6% for a 99% nominal concentration. Please submit a revised CSF.
2. The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable subject to the condition listed below:

Modify the statement "For manufacturing pesticide formulations." to "For formulating end-use products." If your intention is to manufacture end-use products in an integrated production system, resulting in a chemical reaction, then the term should be limited to "For manufacturing end-use products." In the latter situation, formulators will be asked to cite any new impurities formed during manufacturing.

A stamped copy is enclosed for your records. Please submit one (1) copy of your final printed labeling before you release the product for shipment.

If you have any questions, then please contact Terri Stowe of my staff at (703) 305-6117.

Sincerely,

Mary L. Waller

Mary L. Waller
Acting Product Manager (21)
Fungicide Branch
Registration Division (7505C)

Enclosure

3/7

CHLOROPICRIN

FOR MANUFACTURING PESTICIDE/FUMIGANT FORMULATIONS

For the manufacture of pesticide formulations for preplant soil fumigation of terrestrial food crops, ornamentals and nursery beds; for greenhouse preplant soil fumigation of food crops, ornamentals and nursery beds.

ACTIVE INGREDIENT:
 Chloropicrin..... 99%
 INERT INGREDIENTS: 1%
 Total 100%

One gallon of Chloropicrin weighs 14 pounds.



KEEP OUT OF REACH OF CHILDREN



DANGER POISON PELIGRO

PRECAUCION AL USUARIO: Si Usted no entiende, busque a alguien para que se la explique a Usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Statement of Practical Treatment

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

- IF INHALED:** Remove victim to fresh air immediately. Keep victim lying down and warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration, preferably mouth-to-mouth. Do not give anything by mouth to an unconscious person.
- SKIN CONTACT:** Immediately remove all contaminated clothing, shoes, and other items covering skin. Wash contaminated skin area thoroughly with soap and water.
- EYE CONTACT:** Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA REG. NO. 5785-58

EPA EST. NO. 5785-AR-01

NET WEIGHT _____ LBS.

LOT NUMBER _____

ACCEPTED
with COMMENTS
In EPA Letter Dated

GREAT LAKES CHEMICAL CORPORATION
P. O. BOX 2200
WEST LAFAYETTE, INDIANA 47906 U.S.A.

FEB 23 1998

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

5785-58

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER PELIGRO

Poisonous liquid and vapor. Inhalation of vapors may be fatal. Chloropicrin is readily identifiable by smell. Exposure to very low concentrations of vapor will cause irritation of eyes, nose, and throat. Continued exposure after irritation, or higher concentrations may cause painful irritation to the eyes or temporary blindness. Liquid will cause chemical burns to skin or eyes. Do not get on skin, in eyes, or on clothing. Harmful or fatal if swallowed.

NOTE TO PHYSICIAN. Chloropicrin is a volatile liquid that is the active ingredient in tear gas. As a gas it is a powerful lachrymator. Early symptoms of overexposure are lachrymation, respiratory distress and vomiting. Pulmonary edema may develop later. Treatment is symptomatic.

PERSONAL PROTECTIVE EQUIPMENT (PPE). Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category H on an EPA Chemical resistance category selection chart.

Workers with potential to be directly exposed must wear:

Loose-fitting or well ventilated clothing

Socks and chemical resistant footwear

Chemical-resistant gloves, such as barrier laminate and viton when handling liquid

Chemical-resistant apron, when handling liquid

Protective eyewear, when handling liquid

When a respirator is not required, protect the eyes from liquid by wearing a full face shield (goggles are not recommended).

No respirator is required if the air concentration level of chloropicrin in the working area is measured to be less than **0.1 ppm**.

Full face mask respirators are required under the following circumstances:

--if the air concentration level exceeds 0.1 ppm at any time, workers with direct exposure potential must wear (a) a respirator with an organic-vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), OR (b) a respirator with a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

--if the air concentration level exceeds 4 ppm at any time, workers with direct exposure potential must wear, (a) supplied-air respirator (MSHA/NIOSH approval number prefix TC-19C), OR (b) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F).

AIR CONCENTRATION LEVEL:

The acceptable air concentration level for persons exposed to chloropicrin is **0.1 ppm (0.7 mg/M³)**. If the air concentration level exceeds **0.1 ppm**, an air purifying respirator must be worn. If the air concentration level exceeds **4 ppm**, an air-supplying respirator must be worn. The air concentration level is measure by a direct reading detection device such as a Matheson-Kitagawa.

WORKER SAFETY REQUIREMENTS:

1. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them.
2. Clean PPE after each day's use. Air-expose reusable PPE and work clothing outside until free of all traces of fumigant. Then follow PPE manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE and work clothing separately from other laundry.

USER SAFETY RECOMMENDATIONS:

Users should:

--Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

--Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

--Supply your physician with information on chloropicrin, which is available from Great Lakes Chemical Corporation.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

SPILL AND LEAK PROCEDURES

Evacuate everyone from the immediate area of the spill or leak. For entry into affected area to correct problem, wear the personal protective equipment (including prescribed respirator) specified in the Hazards to Humans section of this labeling. Move leaking or damaged containers outdoors or to an isolated location. Observe strict safety precautions. Work upwind, if possible. Allow spilled fumigant to evaporate or to absorb onto vermiculite, dry sand, earth or similar absorbent material. Such material should be disposed of on site or at an approved disposal facility. Only correctly trained and PPE-equipped handlers are permitted to perform such cleanup. Do not permit entry into spill or leak area by any other person until the concentration of chloropicrin is measured to be less than 0.1 ppm.

PHYSICAL AND CHEMICAL HAZARDS

Chloropicrin may be corrosive under certain conditions. DO NOT USE WATER to clean equipment. Flush equipment with kerosene or fuel oil. Do not use handling equipment or containers made from magnesium, alloy, aluminum, or alkali metals. Chloropicrin is a nonflammable liquid.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Reformulators and repackagers of this product must obtain their own registration from the Environmental Protection Agency.

Chloropicrin is to be used for manufacturing pesticide formulations for: (1) preplant soil fumigation of terrestrial food crops, ornamentals and nursery beds, and (2) greenhouse preplant soil fumigation of food crops, ornamentals and nursery beds. Only protected workers may be in the area during processing with this product. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Registration by the Environmental Protection Agency is required before the new product may be lawfully distributed in interstate commerce.

STORAGE AND DISPOSAL

STORAGE AND HANDLING. Store upright in a cool, dry, well-ventilated area under lock and key. Do not remove safety caps until just prior to use. Do not contaminate water, food, or feed by storage or disposal. Persons opening containers must wear the personal protective equipment (including prescribed respirator) specified in the Hazards to Humans section of this labeling. Open container only in a well-ventilated area.

DISPOSAL. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Return empty cylinders freight collect to the Great Lakes Chemical Corporation location from which shipment was made. Close cylinder valve by turning clockwise until hand tight. Disconnect lines. Replace safety caps and bonnet. Return partial cylinders only after consulting Great Lakes Chemical Corporation for proper shipping instructions.

7/
17

STATEMENT OF WARRANTY AND LIABILITY

Seller warrants that this product complies with the specifications expressed in this label. SELLER MAKES NO OTHER WARRANTIES; AND DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR THE INTENDED PURPOSE. Seller's liability for default, breach, or failure under this label shall be limited to the amount of the purchase price. Seller shall have no liability for consequential damages.

CHLRPIC-1 REV.AR-58-G