
SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name : **CRUSADE DF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use : Crop protection product, fungicide

Uses advised against : Activities contrary to label recommendations

1.3. Details of the supplier of the safety data sheet

Company : Integrated Agribusiness Professionals

Address : 7108 N. Fresno Street, Suite 150, Fresno, CA 93720

Telephone : (559) 440-1980

Manufacturer information: www.iapros.com

1.4. Emergency phone number

24 Hour Emergency Phone Number

CHEMTREC : (800) 424-9300

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

GHS Classification Skin irritation, category 2

2.2. GHS Label elements, including precautionary statements

Pictogram



Signal word **Warning**

Hazard statement(s): H315

Precautionary statement(s)

Prevention: P264, P280

Response: P302+P352, P321, P332+P313, P362+P364

2.3 Other hazards

May form flammable dust-air mixture.

3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Component	Concentration	EC-No	CAS-No	Regulation (EC) No 1272/2008	Hazard statements
Sulphur	80.0 % Sulphur	231-722-6	7704-34-9	Skin irritation 2	H315

For the full text of the H-Statements mentioned in this Section, see Section 16

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin contact: Take off all contaminated clothing immediately. Wash the affected area with soap and water. If skin irritation persists, call a physician.

Eye contact: Flush eyes with water as a precaution.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

4.2. Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

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Review No: 04, This version replaces all previous
versions Review date: 05-03-2017

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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Take precautions by the emission of toxic gases (sulphur dioxide). Exposure to decomposition products may be a hazard to health.

5.3. Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Isolate and ventilate the area. Turn off all sources of ignition. Prevent the spill from spreading. Do not generate dust

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

This operation must be performed only by trained personnel. Pick up with suitable tools without raising dust; place in appropriate containers, labelled and close to final destination.

6.4. Reference to other sections

Refer to protective measures listed in sections 7 and 8.

Refer to disposal considerations listed in section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with eyes and skin. Handle only in well ventilated. For personal protection see section 8.

This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion.

Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material.

Do not eat or drink while handling the product, change clothes once the working day.

7.2. Conditions for safe storage, including any incompatibilities

Storage: Store in a safe, cool and dry, having good ventilation at all times. Use original containers that will maintain the product isolated from the environment and humidity.

Incompatible materials: Strong oxidizing agents, avoid combinations with emulsions or miscible oils. Perform compatibility tests before applying the product.

7.3. Specific end use(s)

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

The following recommendations for exposure controls/personal protection are intended for the manufacture and packaging of the product.

8.2. Exposure controls

Engineering measures: Containment and/or segregation are the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. If airborne dust is generated, use local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.

Protective measures: The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.

Respiratory Protection: If there are problems with dust, use approved filter mask.

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Hand protection: Chemical resistant gloves are not usually required. Select gloves based on the physical job requirements.

Eye protection: Wear eye protection to guard against dust, or as the case full-face mask.

Skin and body protection: No special protective equipment required. Select skin and body protection based on the physical job requirements.

Ventilation: There should be a place where it is vented at all times, whether natural or forced.

Hygiene measures: Keep away from food, wash hands before breaks and at end of work. No smoking, eating, drink in the areas of work. Save your work clothes separately.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state/form/colour	: solid, granules, light brown to dark brown
Odour	: no data available
Odour Threshold	: no data available
pH	: 8.0 to 9.5 at 10% w/v
Melting point/range	: 118 -120 °C
Boiling point/boiling range	: Not relevant since it is a solid preparation
Flash point	: 207 °C
Evaporation rate	: Not relevant since it is a solid preparation
Flammability (solid, gas)	: not highly flammable
Lower/upper explosion limit	: no data available
Vapour pressure	: Negligible at 20° C
Relative vapour density	: no data available
Bulk density	: 0.8 – 1.0 g/cc (Tap)
Solubility in other solvents	: no data available
Partition coefficient n-octanol/water	: no data available
Autoignition temperature	: 232 °C
Thermal decomposition	: no data available
Explosive properties	: no data available
Oxidizing properties	: no data available

9.2. Other information

Miscibility : dispersible in water

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: No information available.

10.2. Chemical stability: Stable under recommended storage conditions

10.3. Possibility of hazardous reactions: None under normal processing.

10.4. Conditions to avoid: Extremes of temperature, direct sunlight, ignition sources, moisture.

10.5. Incompatible materials: Strong oxidizing agents. Amines. Bases.

10.6. Hazardous decomposition products: No information available.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sulfur 7704-34-9	LD50 > 2000 mg/kg bw (rat - OECD 401)	LD50 > 2000 mg/kg bw (rat -OECD 402)	LC50 (4h) > 5.43 g/m ³ (dust) (rat -EPA OPP 81-3)

Skin corrosion/irritation

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Skin - Rabbit

Result: No skin irritation

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity to fish: LC50 *Cyprinus carpio* (Carp), > 5,000 mg/l, 96 h

Toxicity to aquatic invertebrates: EC50 *Daphnia magna* Straus, > 1,000 mg/l, 48 h

Toxicity to aquatic plants: EbC50 *Pseudokirchneriella subcapitata* (green algae), 290 mg/l, 72 h

12.2. Persistence and degradability: No data available.

12.3. Bioaccumulative potential: No data available.

12.4. Mobility in soil: No data available.

12.5. Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6. Other adverse effects: No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

1.31 Waste treatment methods

Appropriate methods for removal of residues of the substance or mixture Contact your dealer, local authorities or an accredited waste disposal for the collection and disposal of products or unusable containers company. The useless products should be disposed of as hazardous waste

Appropriate methods for removal of possible contaminated packaging: Disposal will continue in accordance with local, state or national legislation. Either by incineration or recycling

Codes and designations of wastes pursuant to LoW with: No information available.

relevant to the treatment of waste information: No information available.

relevant to the treatment of wastewater information: No information available

Special precautions: No information available

Community / national / regional waste management provisions: No information available

Community / national / regional provisions related to waste management: Waste disposal continue according to local, state or national provisions

SECTION 14: TRANSPORT INFORMATION



Classification ADR/RID/IMDG/IATA-DGR/ICAO-TI

- 14.1. UN number:** Not applicable
- 14.2 UN proper shipping name:** Not applicable
- 14.3. Transport hazard class (es):** Not applicable
- 14.4 Packing group:** Not applicable
- 14.5 Environmental hazards:** Not applicable
- 14.6 Special precautions for use:** Not applicable
- 14.7 Transport in bulk according to Annex of MARPOL and the IBC Code:** Not applicable

Sulphur is not subject to these Regulations when it has been formed to a specific shape (e.g. prills, granules, pellets, pastille or flakes), (242, Chapter 3.3, Part 3, Dangerous goods list, special provisions and exception, UN Model Regulations)

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations: Regulation (EU) No 453/2010: Requirements for the development of the safety data sheet. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Regulation EU 830/2015. International Maritime Dangerous Goods (IMDG) Regulations of the International Civil Aviation Organization (ICAO) and the Association of International Air Transport Association (IATA) on the transport of dangerous goods by air, Regulations concerning the International Carriage of Dangerous Goods by rail (RID), European Agreement on international carriage of dangerous goods by road (ADR)

National regulations: NCH 2190 Of.93 `dangerous substance Transport-Signs for hazard identification, NCH 382 Hazardous Substances Of.89 - Terminology and general classification, 298 and 198 DS Transport of dangerous cargo, DS No. 594 Regulations and Sanitary Conditions Basic workplaces in environmental. NCH 2245 Of.2015 Safety Data Sheets for chemicals

15.2 Chemical Safety Assessment

The receiver must verify the possible existence of legal regulations applicable to chemical

SECTION 16: OTHER INFORMATION

Revision Summary Update to GHS format

Full text of H-Statements referred to under sections 2 and 3

Hazard statement(s)

H315 Causes skin irritation.

Precautionary statement(s)

P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product
P280 Wear protective gloves.
P302 + P352 If on skin: Wash with plenty of soap and water.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.

NFPA Health 2 Flammability 1 Instability 0 Special Hazards -

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