

EXCEL CROP CARE LIMITED – GAJOD
MATERIAL SAFETY DATA SHEET – ALUMINIUM PHOSPHIDE

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<p>1.0 CHEMICAL IDENTITY</p> <p>1.1 PRODUCT NAME</p> <p>1.2 CHEMICAL CLASSIFICATION</p> <p>1.3 CHEMICAL NAME</p> <p>1.4 SYNONYMS</p> <p>1.5 FORMULA</p> <p>1.6 C.A.S. NO.</p> <p>1.7 U. N. NO.</p> <p>1.8 REGULATED IDENTIFICATION</p> <p>1.8.1 SHIPPING NAME CODES / LABEL</p> <p>1.8.2 HAZCHEM NO.</p> <p>1.8.3 HAZARDOUS WASTE ID NO.</p> <p>1.9 HAZARDOUS INGREDIENTS</p>	<p>CELPHOS</p> <p>INORGANIC COMPOUND INSECTICIDE</p> <p>ALUMINIUM PHOSPHIDE</p> <p>CELPHINE – GREECE – CELPHIDE – AUSTRALIA 'L' FUME – USA</p> <p>ALP</p> <p>20859 – 73 – 8</p> <p>3048</p> <p>POISON - CLASS '6' DANGEROUS WHEN WET – CLASS '4'</p> <p>--</p> <p>--</p> <p>ALUMINIUM, PHOSPHOROUS</p>
<p>2.0 PHYSICAL & CHEMICAL DATA</p> <p>2.1 PHYSICAL STATE</p> <p>2.2 APPEARANCE</p> <p>2.3 ODOUR</p> <p>2.4 SPECIFIC GRAVITY (WATER = 1)</p> <p>2.5 VAPOR PRESSURE @ 20°C</p> <p>2.6 VAPOR DENSITY (AIR = 1)</p> <p>2.7 BOILING RANGE / POINT °C</p> <p>2.8 MELTING / FREEZING POING °C</p> <p>2.9 SOLUBILITY IN WATER @ 30°C</p> <p>2.10 pH</p>	<p>SOLID</p> <p>DRY GREY OR YELLOWISH SOLID</p> <p>AMMONICAL ODOUR</p> <p>1.2 BULK DENSITY OF CELMIX</p> <p>EXTREMELY LOW. EVEN AT 1000°C</p> <p>--</p> <p>--</p> <p>> 1000</p> <p>SOLUBLE</p> <p>NOT PERTINENT</p> <p>ALKALINE</p>

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<p>3.0 FIRE & EXPLOSIVE HAZARD DATA</p> <p>3.1 FLAMMABILITY</p> <p>3.2 FLASH POINT °C</p> <p>3.3 AUTO IGNITION TEMP. °C</p> <p>3.4 UPPER EXPLOSION LIMIT (% BY VOLUME)</p> <p>3.5 LOWER EXPLOSION LIMIT (% BY VOLUME)</p> <p>3.6 TDG FLAMMABILITY</p> <p>3.7 EXPLOSION SENSITIVITY TO IMPACT</p> <p>3.8 EXPLOSION SENSITIVITY TO STATIC ELECTRICITY</p> <p>3.9 HAZARDOUS COMBUSTION PRODUCTS</p> <p>3.10 HAZARDOUS POLYMERISATION</p> <p>3.11 COMBUSTIBLE LIQUID</p> <p>3.12 EXPLOSIVE MATERIAL</p> <p>3.13 CORROSIVE MATERIAL</p> <p>3.14 INFLAMMABLE MATERIAL (WATER = 1)</p> <p>3.15 OXIDIZER</p> <p>3.16 PYROPHORIC MATERIAL</p> <p>3.17 ORGANIC PEROXIDE</p> <p>3.18 OTHERS</p>	<p>FLAMMABLE</p> <p>--</p> <p>--</p> <p>NOT DETERMINED</p> <p>NOT DETERMINED</p> <p>NOT DETERMINED</p> <p>NOT DETERMINED</p> <p>NOT DETERMINED</p> <p>P₂O₅</p> <p>NO</p> <p>YES</p> <p>NO</p> <p>NO</p> <p>YES</p> <p>--</p> <p>--</p> <p>NO</p> <p>IN CONTACT WITH WATER, LIBERATE PH₃ GAS WHICH IS POISONOUS AND FLAMMABLE</p>
<p>4.0 REACTIVITY DATA</p> <p>4.1 CHEMICAL REACTIVITY</p> <p>4.2 INCOMPATIBILITY WITH OTHER MATERIAL</p> <p>4.3 REACTIVITY</p> <p>4.4 HAZARDOUS REACTION PRODUCTS</p>	<p>CHEMICALLY STABLE</p> <p>WATER AND DILUTE ACIDS</p> <p>REACTS WITH WATER OR DILUTE ACIDS TO LIBERATE PH₃ GAS</p> <p>PH₃</p>

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5.0 HEALTH HAZARD DATA

5.1 ROUTES OF ENTRY

SKIN, INHALATION, INGESTION

5.2 EFFECT OF EXPOSURE / SYMPTOMS

HEAD-ACHE, NAUSEA, GIDDINESS, BLURRED VISION, DRY COUGH, CHOKING OR VOMITING SENSATION AND LOSS OF MUSCLE COORDINATION.

5.3 EMERGENCY TREATMENT
 PHOSPHINE GAS:
 FORMULA
 BOILING POINT

PLEASE REFER 7.2.1.

PH₃
 -87.4° C - SPECIFIC GRAVITY : 1.214

MOLECULAR WEIGHT

34.04 (AIR : 1)

COLOR

COLORLESS GAS

ODOR

CARBIDE OR GARLIC LIKE

EXPLOSION POINT LOWEST

1.79 PERCENT BY VOLUME IN AIR

5.4 TLV (ACGIH)

0.3 PPM OR 0.4 mg/m³

5.5 STEL

NOT LISTED

5.6 PERMISSIBLE EXPOSURE

NOT LISTED

LIMIT

NOT AVAILABLE

5.7 ODOR THRESHOLD

5.8 LD₅₀ (ROUTES & SPECIES)

20 mg/kg

LC₅₀ (ROUTES & SPECIES)

LC₅₀ (RAT) : 28 ppm/5 hr.

5.9 NEPA HAZARD SIGNALS

HEALTH

--

FLAMMABILITY

--

REACTIVITY

--

SPECIAL

--

6.0 PREVENTIVE MEASURES:

AVOID CONTACT WITH SOLID DUST OR FUMES. **DO NOT EAT OR DRINK AT WORK PLACE.**

6.1 PERSONAL PROTECTIVE EQUIPMENT:

- ❖ GLOVES
- ❖ RESPIRATORY
- ❖ EYES
- ❖ FOOTWARE
- ❖ CLOTHING
- ❖ OTHERS

RUBBER
 DUST PREVENTIVE, AIR SUPPLIED MASK
 GOGGLES
 GUM-BOOTS
 OVER CLOTHING

6.2 HANDLING & STORAGE

--
 DO NOT INHALE THE VAPORS. USE SAFETY GOGGLES, RESPIRATORY DEVICE, STORE IN COOL, WELL VENTILATED AREA, AWAY FROM HEAT, FLAKE AND OXIDISING MATERIAL.

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7.0	EMERGENCY & FIRST-AID MEASURES:	
7.1	FIRE	--
7.1.1	FIRE EXTINGUISHERS MEDIA	CO ₂ OR DRY SAND, DCP
7.1.2	SPECIAL PROCEDURES	
7.1.3	UNUSUAL HAZARDS	DO NOT USE WATER.
7.2.	EXPOSURE	CONTACT WITH WATER OR DILUTE ACIDS LIBERATE POISONOUS GAS pH. FLUSH EYES WITH PLENTY OF WATER. REMOVE CONTAMINATED CLOTHING
7.2.1	FIRST-AID MEASURES	WASH SKIN WITH SOAP AND WATER. SEEK MEDICAL TREATMENT. INHALATION – REMOVE VICTIM TO FRESH AIR. OXYGEN THEROPY IS RECOMMENDED. INGESTION – INDUCE VOMITING. REPEAT TREATMENT UNTIL VOMIT FLUID IS CLEAR. REPORT TO DOCTOR IMMEDIATELY
7.2.2	ANTIDOTE / DOSAGE	--
7.3	SPILLS	❖ SWEEP UP SPILLED SUBSTANCE, ❖ REMOVE TO SAFE PLACE. ❖ PROTECT AGAINST WATER. ❖ KEEP REMAINING CARGO DRY.
7.3.1	STEPS TO BE TAKEN	
7.3.2,	WASTE DISPOSAL METHOD	COMPLETELY DECOMPOSE IN KMNO ₄ SOLUTION & BURRY IT. METAL CAN, DRUMS WASH OUT. PUNCTURE AND BURRY IN NO MAN LAND.

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8.0 ADDITIONAL INFORMATION/REFERENCE

DRUG THERAPY: GIVE GASTRIC LAVAGE WITH 1:5000 POTASSIUM PERMANGANATE SOLUTION. IN CASE OF PULMONARY ODEMA, GIVE HYPERTONIC GLUCOSE SOLUTION INTRAVENOUSLY.

LABELLING: THE FOLLOWING INFORMATION SHALL BE INCORPORATED ON THE LABELS ALONG WITH OTHER INSTRUCTIONS.

ALUMINIUM PHOSPHIDE FUMES HIGHLY TOXIC. OPEN THE CONTAINER IN OPEN AIR. AVOID USE OF METALLIC DEVICE FOR OPENING AS IT MAY CATCH FIRE. DESTROY EMPTY CONTAINERS. KEEP AWAY FROM WATER.

STORAGE : IN PRODUCTION / FORMULATIONS PLANTS – ALWAYS STORE ALUMINIUM PHOSPHIDE PREPARATIONS IN PLAINLY LABELLED METAL DRUMS IN SEPARATE CLOSED DRY WELL LIT ROOMS OF SUFFICIENT DIMENSIONS TO AVOID SIGNIFICANT CONTAMINATION WITH PHOSPHINE GAS AND FAR AWAY FROM ROOMS / PREMISES USED FOR STORING OTHER ARTICLES. STORAGE AREAS SHOULD HAVE ADEQUATE SUCTION FACILITIES (FOR e.g. BLOWER etc) SO THAT GOOD AIR CIRCULATION IS MAINTAINED. ALL STORAGE VESSEL SHOULD HAVE SAFETY VALVES, SO AS TO RELEASE PRESSURE IN CASE OF EXCESS PHOSPHINE GENERATION.

STORAGE DURING TRANSPORT: ALWAYS STORE ALUMINIUM PHOSPHIDE PREPARATIONS IN AIR TIGHT (LEAK-PROOF) CONTAINERS.

HANDLING: ALWAYS OBSERVE FOLLOWING SAFETY MEASURES WHILE HANDLING ALUMINIUM PHOSPHIDE PREPARATIONS.

IN MANUFACTURING PLANT:

- ❖ WEAR GLOVES, GAS MASK WITH FRESH AIR SUPPLY APPARATUS.
- ❖ DO NOT INHALE FUMES OR DUST.
- ❖ SMOKING, DRINKING OR EATING IN THE PLANT SHOULD BE STRICTLY PROHIBITED.
- ❖ ODOR OF PHOSPHINE SHOULD NEVER BE RELIED UPON AS AN INDICATION OF ITS POISONING CONCENTRATION. IT WILL BE ADVISABLE TO MONITOR IT FROM TIME TO TIME.
- ❖ EMPLOYEES IN PLANT SHOULD BE WASH / BATH ON LEAVING AND THEY SHOULD BE EDUCATED ABOUT HAZARDS OF ALUMINIUM PHOSPHIDE PH₃ GAS.

IN FORMULATION WORK:

- ❖ WEAR RUBBER GLOVES WHILE DISPERSING TABLETS BY HAND.
- ❖ RESPIRATORS NEED NOT BE WORN WHEN TABLETS ARE BEING CONCENTRATIONS OF PH₃ GAS BELOW THRESHOLD LIMIE VALUE OF 0.3 PPM.
- ❖ WARNING NOTICES SHOULD BE POSTED NEAR THE FUMIGATION AREA TO PREVENT EXPOSURE OF EMPLOYEES / PUBLIC TO THE GAS.
- ❖ ALL COPPER CONTAINING EQUIPMENT AND PARTS IN THE GODOWN OR OTHER STRUCTURE SHOULD BE PROTECTRED BEFORE FUMIGATION.
- ❖ NEVER FUMIGATE ANY COMMODITY EXCEPT UNDER EXPERT SUPERVISION IN AIR-TIGHT LEAK PROOF.
- ❖ ALWAYS THOROUGHLY AERATE FUMIGATED AREA FOR PRESCRIBED COMMODITY. DO NOT USE IN RESIDENTIAL PREMISES AND CATTLE SHEDS.

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9.0 MANUFACTURER/SUPPLIERS
DATA

9.1 NAME OF FIRM

9.2 FACTORY ADDRESS

9.3 TELEPHONE

9.4 TELEX NO.

9.5 FAX NO.

9.6 TELEGRAPHIC ADDRESS

9.7 CONTACT PERSON IN
EMERGENCY

9.8 LOCAL BODIES INVOLVED

9.9 STANDARD PACKING

9.10 TREMCARD DETAILS / REF.

OTHER PARTIES

USER

EXCEL CROP CARE LIMITED

205-209, BHUJ-MUNDRA ROAD,
NEAR KERA VILLAGE,
GAJOD – 370 430
KUTCH – GUJARAT

02832 – 281461

N. A.

02832 – 281491

N. A.

SHRI M. K. MANKAD
SITE INCHARGE-GAJOD

OFF. 02832 - 281461
MOB. : 94267 03475

SHRI AVINASH AUTI
CHIEF MANAGER(OPRN)
OFF.02832 - 281461
RES. --

SHRI V GOPALAKRISHNAN
V. P. OPERATIONS
(MFG.AGRO.DIVISIONS)
OFF. 022 - 28713031
RES. 842 41 00

SHRI MOHAN PATIL
SITE INCHARGE - SILVASA
OFF. 0260 - 2650278
MOB. : 98241 13291

GAJOD GRAM PANCHAYAT - GAJOD

ALUMINIUM TUBES IN TINS, ALUMINIUM BOTTLES
POUCHES

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10.0 DISCLAIMER

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11.1 CURRENT ISSUE

11.2 REVISION NUMBER

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OF

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