

AMMO-CHIPS

Chemwatch GHS Safety Data Sheet
For Domestic Use Only.
Dec-23-2009
NC614TDP

CHEMWATCH 4658-38
Version No:4
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

AMMO-CHIPS

PRODUCT USE

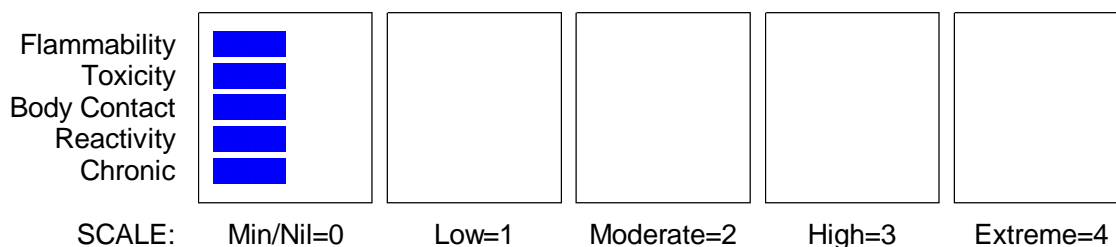
Used according to manufacturer's directions.
For product 79.

SUPPLIER

Company: Mars Fishcare Inc
Address:
50 East Hamilton Street
Chalfont
PA, 18914
USA
Telephone: +1 215 822 8181
Fax: +1 215 822 1906

Section 2 - HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS



EMERGENCY OVERVIEW

HAZARD

Not hazardous

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| NAME | CAS RN | % |
|----------|-----------|-----|
| zeolites | 1318-02-1 | 100 |

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Section 4 - FIRST AID MEASURES

SWALLOWED

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE

If this product comes in contact with eyes:

- Wash out immediately with water.
- If irritation continues, seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin or hair contact occurs:

- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

FIRE/EXPLOSION HAZARD

- Non combustible.
- Not considered a significant fire risk, however containers may burn.

FIRE INCOMPATIBILITY

None known.

PERSONAL PROTECTION

Glasses:
Chemical goggles.

Gloves:
When handling larger quantities:

Respirator:
Particulate

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear impervious gloves and safety glasses.
- Use dry clean up procedures and avoid generating dust.
- Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).

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Section 6 - ACCIDENTAL RELEASE MEASURES

- Do NOT use air hoses for cleaning
- Place spilled material in clean, dry, sealable, labelled container.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

Multi-ply paper bag with sealed plastic liner or heavy gauge plastic bag.

NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse. Check that all containers are clearly labelled and free from leaks. Packing as recommended by manufacturer.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry area protected from environmental extremes.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations

For major quantities:

- Consider storage in banded areas - ensure storage areas are isolated from sources of community water (including stormwater, ground water, lakes and streams).
- Ensure that accidental discharge to air or water is the subject of a contingency disaster management plan; this may require consultation with local authorities.

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



+ + + + X +

+: May be stored together

O: May be stored together with specific preventions

X: Must not be stored together

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Section 7 - HANDLING AND STORAGE

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

US OSHA Permissible Exposure Levels (PELs)

| Z | Material | TWA ppm | TWA mg/m ³ | STEL ppm | STEL mg/m ³ | Peak ppm | Peak mg/m ³ | Max excursion ppm | Max excursion mg/m ³ | Max excursion duration (mins) | TWA F/CC |
|----|---|------------|--------------------------|-------------|---------------------------|-------------|---------------------------|-------------------------|---------------------------------------|--|-------------|
| Z3 | Inert or Nuisance Dust: (d) Respirable fraction | | 5 | | | | | | | | |
| Z3 | Inert or Nuisance Dust: (d) Total dust | | 15 | | | | | | | | |

| Source | Material | TWA mg/m ³ | Notes |
|--|--|-----------------------|-------|
| US - Oregon Permissible Exposure Limits (Z3) | zeolites (Inert or Nuisance Dust: (d) Total dust) | 10 | * |
| US OSHA Permissible Exposure Levels (PELs) - Table Z3 | zeolites (Inert or Nuisance Dust: (d) Respirable fraction) | 5 | |
| US OSHA Permissible Exposure Levels (PELs) - Table Z3 | zeolites (Inert or Nuisance Dust: (d) Total dust) | 15 | |
| US - Hawaii Air Contaminant Limits | zeolites (Particulates not other wise regulated - Total dust) | 10 | |
| US - Hawaii Air Contaminant Limits | zeolites (Particulates not other wise regulated - Respirable fraction) | 5 | |
| US - Oregon Permissible Exposure Limits (Z3) | zeolites (Inert or Nuisance Dust: (d) Respirable fraction) | 5 | * |
| US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants | zeolites (Particulates not otherwise regulated Respirable fraction) | 5 | |
| US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants | zeolites (Particulates not otherwise regulated (PNOR)(f)- Respirable fraction) | 5 | |
| US - Michigan Exposure Limits for Air Contaminants | zeolites (Particulates not otherwise regulated, Respirable dust) | 5 | |

MATERIAL DATA

AMMO-CHIPS:
Not available

ZEOLITES:

It is the goal of the ACGIH (and other Agencies) to recommend TLVs (or their equivalent) for all substances for which there is evidence of health effects at airborne concentrations encountered in the workplace.

At this time no TLV has been established, even though this material may produce adverse health effects (as evidenced in animal experiments or clinical experience). Airborne concentrations must be maintained as low as is practically possible and occupational exposure must be kept to a minimum.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

NOTE: The ACGIH occupational exposure standard for Particles Not Otherwise Specified (P.N.O.S) does NOT apply.

PERSONAL PROTECTION



EYE

- Safety glasses with side shields
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET

Wear general protective gloves, eg. light weight rubber gloves.

OTHER

No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- Barrier cream.
- Eyewash unit.

RESPIRATOR

| Protection Factor | Half- Face Respirator | Full- Face Respirator | Powered Air Respirator |
|-------------------|-----------------------|-----------------------|------------------------|
| 10 x ES | P1 Air- line* | - - | PAPR- P1 - |
| 50 x ES | Air- line** | P2 | PAPR- P2 |
| 100 x ES | - | P3 | - |
| | | Air- line* | - |
| 100+ x ES | - | Air- line** | PAPR- P3 |

* - Negative pressure demand

** - Continuous flow.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

- Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.
- If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered.

Such protection might consist of:

- (a): particle dust respirators, if necessary, combined with an absorption cartridge;
- (b): filter respirators with absorption cartridge or canister of the right type;
- (c): fresh-air hoods or masks.

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:

direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)

grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).

Air Speed:

1- 2.5 m/s (200- 500 f/min.)

2.5- 10 m/s (500- 2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range

- 1: Room air currents minimal or favourable to capture
- 2: Contaminants of low toxicity or of nuisance value only.
- 3: Intermittent, low production.
- 4: Large hood or large air mass in motion

Upper end of the range

- 1: Disturbing room air currents
- 2: Contaminants of high toxicity
- 3: High production, heavy use
- 4: Small hood- local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 4-10 m/s (800-2000 f/min) for extraction of crusher dusts generated 2 metres distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Crystallising sand-like appearance with an earth-like odour; insoluble in water.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

Does not mix with water.
Sinks in water.

| | | | |
|---------------------------|----------------|---------------------------------|----------------|
| State | Divided Solid | Molecular Weight | Not Applicable |
| Melting Range (°F) | Not Available | Viscosity | Not Applicable |
| Boiling Range (°F) | Not Applicable | Solubility in water (g/L) | Immiscible |
| Flash Point (°F) | Not Applicable | pH (1% solution) | Not Applicable |
| Decomposition Temp (°F) | Not Available | pH (as supplied) | Not Applicable |
| Autoignition Temp (°F) | Not Applicable | Vapour Pressure (mmHG) | Not Applicable |
| Upper Explosive Limit (%) | Not Applicable | Specific Gravity (water=1) | 1.5- 1.7 |
| Lower Explosive Limit (%) | Not Applicable | Relative Vapour Density (air=1) | Not Applicable |
| Volatile Component (%vol) | Not Applicable | Evaporation Rate | Not Applicable |

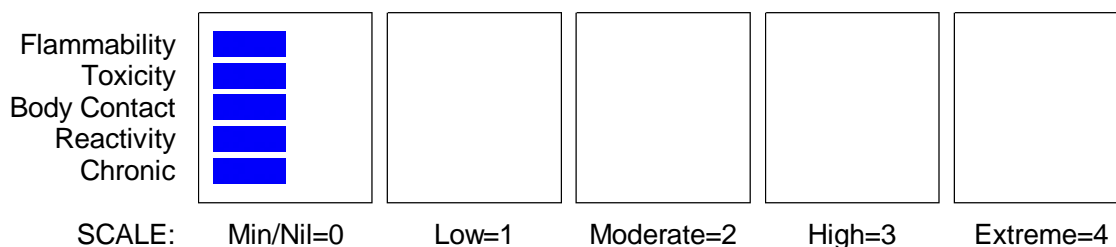
Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

Product is considered stable and hazardous polymerisation will not occur.
For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

CHEMWATCH HAZARD RATINGS



POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (eg. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

EYE

Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result. The material may produce foreign body irritation in certain individuals.

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Section 11 - TOXICOLOGICAL INFORMATION

SKIN

The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

INHALED

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

CHRONIC HEALTH EFFECTS

Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness; lung shadows show on X-ray.

TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

ZEOLITES:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (rat) LD50: >5110 mg/kg
Dermal (rabbit) LD50: >2000 mg/kg
Inhalation (-) LC50: >18.3 mg/l/1hr
for sodium aluminosilicate, zeolite A:

IRRITATION

Skin (rabbit): non- irritating
Eye (rabbit): slight

[Grace]

CARCINOGEN

| | | | |
|--|---|-------|---|
| Zeolites other than erionite (clinoptilolite, phillipsite, mordenite, non- fibrous Japanese zeolite, synthetic zeolites) | International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs | Group | 3 |
|--|---|-------|---|

Section 12 - ECOLOGICAL INFORMATION

Refer to data for ingredients, which follows:

ZEOLITES:

Metal-containing inorganic substances generally have negligible vapour pressure and are not expected to partition to air. Once released to surface waters and moist soils their fate depends on solubility and dissociation in water. Environmental processes (such as oxidation and the presence of acids or bases) may transform insoluble metals to more soluble ionic forms. Microbiological processes may also transform insoluble metals to more soluble forms. Such ionic species may bind to dissolved ligands or sorb to solid particles in aquatic or aqueous media. A significant proportion of dissolved/ sorbed metals will end up in

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Section 12 - ECOLOGICAL INFORMATION

sediments through the settling of suspended particles. The remaining metal ions can then be taken up by aquatic organisms.

When released to dry soil most metals will exhibit limited mobility and remain in the upper layer; some will leach locally into ground water and/ or surface water ecosystems when soaked by rain or melt ice.

Environmental processes may also be important in changing solubilities.

Even though many metals show few toxic effects at physiological pHs, transformation may introduce new or magnified effects.

A metal ion is considered infinitely persistent because it cannot degrade further.

The current state of science does not allow for an unambiguous interpretation of various measures of bioaccumulation.

The counter-ion may also create health and environmental concerns once isolated from the metal. Under normal physiological conditions the counter-ion may be essentially insoluble and may not be bioavailable.

Environmental processes may enhance bioavailability.

For zeolites:

The environmental exposure assessments for detergent-based zeolites were conducted using the HERA detergent scenario (HERA, 2004). The PNEC values used in the risk assessment were derived from the most conservative reliable NOEC values available in the study.

These long-term ecotoxicity data have confirmed the anticipation that the ecological behaviour of the zeolite types used in detergents is very similar. The risk characterisation ratios based upon the discussed exposure and effects data show RCR values < 1 and, hence, do not indicate a risk for any of the environmental compartments, i.e. water, sediment, soil and sewage treatment plants (STP).

The favourable outcome of this environmental risk assessment provides a sound basis for the conclusion that the use of zeolites in detergent products does not pose a risk to the environment.

Supplement to the HERA Report on the Environmental Assessment of Zeolite A; September 2005

Ecotoxicity:

for sodium aluminosilicate, zeolite A

Fish toxicity LC50 (96 h): *Brachidario rerio* 1800 mg/l

Daphnia magna EC50 (48 h): 2808 mg/l

Algal toxicity NOEC (96 h): *Scenedesmus* subspecies 10 mg/l

Bacterial toxicity (*Pseudomonas putida*): 330 mg/l, initial inhibition of cell multiplication [Source - Grace].

DO NOT discharge into sewer or waterways.

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle where possible
Otherwise ensure that:
- licenced contractors dispose of the product and its container.
- disposal occurs at a licenced facility.

Section 14 - TRANSPORTATION INFORMATION

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: DOT, IATA, IMDG

Section 15 - REGULATORY INFORMATION

REGULATIONS

Regulations for ingredients

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Section 15 - REGULATORY INFORMATION

zeolites (CAS: 1318-02-1,37305-72-9,50809-51-3,52349-29-8,53025-48-2,53060-43-8,53569-61-2,53789-62-1,54693-40-2,54824-24-7,56747-83-2,61710-45-0,75216-11-4,76774-74-8,85117-23-3) is found on the following regulatory lists;

"International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals", "US Cosmetic Ingredient Review (CIR) Cosmetic ingredients found safe as used"

No data for Ammo-Chips (CW: 4658-38)

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

| Ingredient Name | CAS |
|-----------------|---|
| zeolites | 1318- 02- 1, 37305- 72- 9, 50809- 51- 3, 52349- 29- 8, 53025- 48- 2, 53060- 43- 8, 53569- 61- 2, 53789- 62- 1, 54693- 40- 2, 54824- 24- 7, 56747- 83- 2, 61710- 45- 0, 75216- 11- 4, 76774- 74- 8, 85117- 23- 3 |

CONTACT

Mars Fishcare

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

For detailed advice on Personal Protective Equipment, refer to the following U.S. Regulations and Standards:

OSHA Standards - 29 CFR:

1910.132 - Personal Protective Equipment - General requirements

1910.133 - Eye and face protection

1910.134 - Respiratory Protection

1910.136 - Occupational foot protection

1910.138 - Hand Protection

Eye and face protection - ANSI Z87.1

Foot protection - ANSI Z41

Respirators must be NIOSH approved.

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