

Issue date 02/13/2019

Reviewed on 02/13/2019

* 1 Identification

- **Product Identifier**
- **Trade Name:** Ammo Flex, Perfect 90
- **Relevant identified uses of the substance or mixture and uses advised against:** Drywall Applications
- **Product Description:** Construction Product
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
ClarkDietrich-StraitFlex
3851 Corporate Center Drive
O'Fallon, MO, 63368
Fax: 636-300-0414
Straitflex.com
- **Emergency telephone number:** 1-636-300-1411

2 Hazard(s) Identification

- **Classification of the substance or mixture:**
The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.
- **Label elements:**
- **GHS label elements** Non-Regulated Material
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:** Non-Regulated Material
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

| | | |
|------------|---|---------------------|
| HEALTH | 0 | Health = 0 |
| FIRE | 0 | Fire = 0 |
| REACTIVITY | 0 | Physical Hazard = 0 |

- **Hazard(s) not otherwise classified (HNOC):** None known

* 3 Composition/Information on Ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with non-hazardous additions.

· **Dangerous Components:**

| | | |
|------------------------------------|---|--------|
| CAS: 9004-34-6 | Cellulose | 25-50% |
| CAS: 65996-61-4 | Pulp Cellulose Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2B, H320; Combustible Dust | 25-50% |
| CAS: 101-68-8 RTECS: NQ 9350000 | 4,4'-methylenediphenyl diisocyanate Resp. Sens. 1, H334; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335 | <1% |

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| | | |
|----------------|--|-----|
| CAS: 5873-54-1 | o-(p-isocyanatobenzyl)phenyl isocyanate ⚠ Resp. Sens. 1, H334; STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335 | <1% |
| CAS: 7631-86-9 | Silicon Dioxide ⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320 | <1% |

• **Additional information:**

The ingredients of this mixture are considered to be proprietary and are withheld in accordance with paragraph (i) of §1910.1200 of 29 CFR 1910.1200, the OSHA Hazard Communication Standard and U.S. Code of Federal Regulations.

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

The components listed above pose no direct hazard to the end user under normal use and operating conditions, as they are combined and transformed into a solid product.

4 First-Aid Measures

• **Description of first aid measures**

• **General information:** No special measures required.

• **After inhalation:** Not anticipated under normal use.

• **After skin contact:**

Wash with soap and water.

If skin irritation occurs, consult a doctor.

• **After eye contact:**

Rinse opened eye for several minutes under running water.

If eye irritation occurs, consult a doctor.

• **After swallowing:** Not a normal route of entry.

• **Information for doctor**

• **Most important symptoms and effects, both acute and delayed:** No further relevant information available.

• **Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

5 Fire-Fighting Measures

• **Extinguishing media**

• **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

• **For safety reasons unsuitable extinguishing agents:** No further relevant information.

• **Special hazards arising from the substance or mixture:** No further relevant information available.

• **Advice for firefighters**

• **Special protective equipment for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

* 6 Accidental Release Measures

• **Personal precautions, protective equipment and emergency procedures:** Not required.

• **Environmental precautions:** No special measures required.

• **Methods and material for containment and cleaning up:**

Dispose of the collected material according to regulations.

• **Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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· Protective Action Criteria for Chemicals

| | | |
|-----------------|-------------------------------------|-------------------------|
| · PAC-1: | | |
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate | 0.45 mg/m ³ |
| 7631-86-9 | Silicon Dioxide | 18 mg/m ³ |
| · PAC-2: | | |
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate | 5 mg/m ³ |
| 7631-86-9 | Silicon Dioxide | 740 mg/m ³ |
| · PAC-3: | | |
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate | 55 mg/m ³ |
| 7631-86-9 | Silicon Dioxide | 4,500 mg/m ³ |

7 Handling and Storage

- Handling**
- Precautions for safe handling:** No special measures required.
- Information about protection against explosions and fires:** No special measures required.
- Conditions for safe storage, including any incompatibilities**
- Storage**
- Requirements to be met by storerooms and receptacles:** Store in a cool, dry place.
- Information about storage in one common storage facility:** Not required.
- Further information about storage conditions:** None.
- Specific end use(s):** No further relevant information available.

*** 8 Exposure Controls/Personal Protection**

- Additional information about design of technical systems:** No further data; see section 7.
- Control parameters:**
- Components with occupational exposure limits:**
 The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
 At this time, the remaining constituents have no known exposure limits.

| | |
|---|---|
| 9004-34-6 Cellulose | |
| PEL | Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction |
| REL | Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction |
| TLV | Long-term value: 10 mg/m ³ |
| 65996-61-4 Pulp Cellulose | |
| ACGIH/TLV | Ceiling limit value: 5 mg/m ³ |
| OSHA/PEL | Ceiling limit value: 15 mg/m ³ |
| 101-68-8 4,4'-methylenediphenyl diisocyanate | |
| PEL | Ceiling limit value: 0.2 mg/m ³ , 0.02 ppm |
| REL | Long-term value: 0.05 mg/m ³ , 0.005 ppm Ceiling limit value: 0.2* mg/m ³ , 0.02* ppm *10-min |
| TLV | Long-term value: 0.051 mg/m ³ , 0.005 ppm |

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7631-86-9 Silicon Dioxide

| | |
|------|---|
| ACGH | Short-term value: 3 mg/m ³ Long-term value: 10 mg/m ³ |
| IDLH | Short-term value: 3000 mg/m ³ Long-term value: 4 E mg/m ³ IDLH: Immediately dangerous to life or health |
| TWA | Short-term value: 6 mg/m ³ Long-term value: 4 E mg/m ³ |

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:** No special measures required.
- **Breathing equipment:** Not required.
- **Protection of hands:** Not required.
- **Eye protection:**



Safety glasses

- **Limitation and supervision of exposure into the environment:** None

9 Physical and Chemical Properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
 - Form:** Formed Strip
 - Color:** White
- **Odour:** Odorless
- **Odor threshold:** Not determined.
- **pH-value:** Not applicable.
- **Change in condition**
 - Melting point/Melting range:** Not determined.
 - Boiling point/Boiling range:** Not determined.
- **Flash point:** None
- **Flammability (solid, gaseous):** Not determined.
- **Ignition temperature:** Not applicable
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- **Vapor pressure:** Not applicable.

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- **Density:**
 - Relative density:** Not determined.
 - Vapor density:** Not applicable.
 - Evaporation rate:** Not applicable.
- **Solubility in / Miscibility with:**
 - Water:** Insoluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not applicable.
 - Kinematic:** Not applicable.
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** The product is stable under normal conditions
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

* 11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

9004-34-6 Cellulose

| | | |
|--------|------|-----------------------|
| Oral | LD50 | >5,000 mg/kg (Rat) |
| Dermal | LD50 | >2,000 mg/kg (Rabbit) |

65996-61-4 Pulp Cellulose

| | | |
|------------|----------|------------------|
| Inhalative | LC50/4 h | 5,800 mg/l (Rat) |
|------------|----------|------------------|

101-68-8 4,4'-methylenediphenyl diisocyanate

| | | |
|------------|----------|-----------------------|
| Oral | LD50 | 2,200 mg/kg (Mouse) |
| Dermal | LD50 | >9,400 mg/kg (Rabbit) |
| Inhalative | LC50/4 h | >1,000 mg/l (Trout) |

7631-86-9 Silicon Dioxide

| | | |
|------------|----------|--|
| Oral | LD50 | 10,000 mg/kg (Rat) (OECD 401) |
| Dermal | LD50 | 5,000 mg/kg (Rabbit) (OECD 402) |
| Inhalative | LC50/4 h | >140->2,000 mg/l (Rat) (OCED 403) |
| | | Maximum attainable concentration, mortality does not appear. |
| | | 10,000 mg/l (Zebra fish) (OECD 203) |

- **Primary irritant effect:**
- **On the skin:** No irritating effect.
- **On the eye:** No irritating effect.

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· **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations.

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· **Carcinogenic categories:**

· **IARC (International Agency for Research on Cancer):**

| | | |
|-----------|-------------------------------------|---|
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate | 3 |
| 7631-86-9 | Silicon Dioxide | 3 |

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

* 12 Ecological Information

· **Toxicity:**

· **Aquatic toxicity:**

| | | |
|---|----------------------------------|--|
| 101-68-8 4,4'-methylenediphenyl diisocyanate | | |
| EC50 | >1,000 mg/l (Daphnia) | |
| 7631-86-9 Silicon Dioxide | | |
| EC50 | >1,000 mg/l (Daphnia) (OECD 202) | |

· **Persistence and degradability:** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential:** No further relevant information available.

· **Mobility in soil:** No further relevant information available.

· **Additional ecological information:**

· **General notes:** Generally not hazardous for water.

· **Results of PBT and vPvB assessment:**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

· **Waste treatment methods**

· **Recommendation:**

Smaller quantities can be disposed of with household waste.

Observe all federal, state and local environmental regulations when disposing of this material.

· **Uncleaned packaging**

· **Recommendation:** Disposal must be made according to official regulations.

14 Transport Information

· **UN-Number:**

· **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material

· **UN proper shipping name:**

· **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material

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- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

* 15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

101-68-8 4,4'-methylenediphenyl diisocyanate

· **TSCA (Toxic Substances Control Act):**

| | |
|------------|---|
| 9004-34-6 | Cellulose |
| 65996-61-4 | Pulp Cellulose |
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate |
| 5873-54-1 | o-(p-isocyanatobenzyl)phenyl isocyanate |
| 7631-86-9 | Silicon Dioxide |

· **TSCA new (21st Century Act): (Substances not listed)**

65996-61-4 Pulp Cellulose

· **California Proposition 65:**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **New Jersey Right-to-Know List:**

| | |
|-----------|-------------------------------------|
| 9004-34-6 | Cellulose |
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate |

· **New Jersey Special Hazardous Substance List:**

None of the ingredients are listed.

· **Pennsylvania Right-to-Know List:**

| | |
|-----------|-------------------------------------|
| 9004-34-6 | Cellulose |
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate |

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| | | |
|---|-------------------------------------|--------|
| 7631-86-9 | Silicon Dioxide | |
| · Pennsylvania Special Hazardous Substance List: | | |
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate | E |
| · Carcinogenic categories: | | |
| · EPA (Environmental Protection Agency): | | |
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate | D, CBD |
| · TLV (Threshold Limit Value established by ACGIH): | | |
| None of the ingredients are listed. | | |
| · NIOSH-Ca (National Institute for Occupational Safety and Health): | | |
| None of the ingredients are listed. | | |
| · GHS label elements Non-Regulated Material | | |
| · Hazard pictograms: Non-Regulated Material | | |
| · Signal word: Non-Regulated Material | | |
| · Hazard statements: Non-Regulated Material | | |
| · National regulations: | | |
| None of the ingredients are listed. | | |
| · Chemical safety assessment: A Chemical Safety Assessment has not been carried out. | | |

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Date of preparation / last revision:** 02/13/2019 / 2

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety and Health
 OSHA: Occupational Safety & Health Administration
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
 Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B
 Resp. Sens. 1: Respiratory sensitisation – Category 1
 Skin Sens. 1: Skin sensitisation – Category 1
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

· *** Data compared to the previous version altered.**

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