

**Safety Data Sheet**  
Acc. to OSHA HCS (29 CFR 1910.1200)


Printing date: March 16, 2018

Revision: March 16, 2018

## 1 Identification

- **Product identifier**
- **Trade name:** Star Macro Flex
- **Product code:** 400005, 400055, 400275
- **Recommended use and restriction on use**
- **Recommended use:** Reinforcing latex additive for seal coatings
- **Restrictions on use:** Contact manufacturer/supplier
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
STAR SPECIALTY TECHNOLOGY AND RESEARCH (S.T.A.R. Inc)  
1150 Milestone Drive  
Columbus, OH 43228  
Toll Free: (800)759-1912  
Office: (614)870-0744  
Fax: (614)870-0598  
Info@StarSeal.com
- **Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924 (North America)  
+1 (813)248-0585 (International)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
Muta. 1A H340 May cause genetic defects.  
Carc. 1B H350 May cause cancer.  
Repr. 2 H361 Suspected of damaging fertility or the unborn child.
- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**  
  
GHS07 GHS08
- **Signal word:** Danger
- **Hazard statements:**  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H340 May cause genetic defects.  
H350 May cause cancer.  
H361 Suspected of damaging fertility or the unborn child.
- **Precautionary statements:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.

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- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P264 Wash thoroughly after handling.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing/eye protection.
- P302+P352 If on skin: Wash with plenty of water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P363 Wash contaminated clothing before reuse.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

25155-30-0	sodium dodecylbenzenesulphonate <div style="font-size: small; margin-top: 5px;"> <span style="color: red;">⚠</span> Eye Dam. 1, H318  <span style="color: red;">⚠</span> Acute Tox. 4, H302; Skin Irrit. 2, H315         </div>	<3%
924-42-5	N-(hydroxymethyl)acrylamide <div style="font-size: small; margin-top: 5px;"> <span style="color: red;">⚠</span> Muta. 1A, H340; STOT RE 2, H373  <span style="color: red;">⚠</span> Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317         </div>	<1%
79-06-1	acrylamide <div style="font-size: small; margin-top: 5px;"> <span style="color: red;">⚠</span> Acute Tox. 3, H301  <span style="color: red;">⚠</span> Muta. 1B, H340; Carc. 1B, H350; Repr. 2, H361; STOT RE 1, H372  <span style="color: red;">⚠</span> Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317         </div>	<1%

· **Additional information:** For the wording of the listed Hazard Statements, refer to section 16.

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation or rash occurs: Get medical advice/attention.

· **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

Coughing

Breathing difficulty

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Causes eye irritation.

Allergic reactions

Nausea in case of ingestion.

· **Danger:**

May cause genetic defects.

Suspected of damaging fertility or the unborn child.

May cause cancer.

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

Treat symptomatically.

Contains N-(hydroxymethyl)acrylamide, acrylamide. May produce an allergic reaction.

If medical advice is needed, have product container or label at hand.

### 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

The product is not flammable.

Use fire fighting measures that suit the environment.

· **For safety reasons unsuitable extinguishing agents:** None.

· **Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

### 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

Wear protective equipment. Keep unprotected persons away.

Use respiratory protective device against the effects of fumes/dust/aerosol.

· **Environmental precautions**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **Methods and material for containment and cleaning up**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

· **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.

### 7 Handling and storage

· **Handling**

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- **Precautions for safe handling:**
  - Prevent formation of aerosols.
  - Use only outdoors or in a well-ventilated area.
  - Avoid splashes or spray in enclosed areas.
  - Take off contaminated clothing and wash it before reuse.
  - Wash contaminated clothing before reuse.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
  - Store in cool, dry conditions in well sealed receptacles.
- **Information about storage in one common storage facility:**
  - Store away from foodstuffs.
  - Store away from oxidizers, strong acids, strong bases.
- **Further information about storage conditions:**
  - Store locked up.
  - Protect from frost.
- **Specific end use(s)** No relevant information available.

### 8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

**79-06-1 acrylamide**

PEL (USA)	Long-term value: 0.3 mg/m <sup>3</sup> Skin
REL (USA)	Long-term value: 0.03 mg/m <sup>3</sup> Skin; See Pocket Guide App. A
TLV (USA)	Long-term value: 0.03* mg/m <sup>3</sup> Skin;*inhalable fraction and vapor
EL (Canada)	Long-term value: 0.03 mg/m <sup>3</sup> vapour and inhalable aerosol; Skin; IARC 2A
EV (Canada)	Long-term value: 0.03 mg/m <sup>3</sup> inhalable, vapour and aerosol, Skin
LMPE (Mexico)	Long-term value: 0.03 mg/m <sup>3</sup> PIEL, A3, IFV

- **Exposure controls**
- **General protective and hygienic measures:**
  - The usual precautionary measures for handling chemicals should be followed.
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes.
  - Avoid close or long term contact with the skin.
  - Do not breathe dust/fume/gas/mist/vapors/spray.
  - Pregnant women should strictly avoid inhalation or skin contact.
- **Engineering controls:** Provide adequate ventilation.

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· **Breathing equipment:**

Not required under normal conditions of use.

Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

Use suitable respiratory protective device when aerosol or mist is formed.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

· **Body protection:** Protective work clothing

· **Limitation and supervision of exposure into the environment**

No relevant information available.

**9 Physical and chemical properties**

· **Information on basic physical and chemical properties**

· **Appearance:**

· **Form:** Liquid

· **Color:** Light blue

· **Odor:** Mild rubber

· **Odor threshold:** Not determined.

· **pH-value:** 6.0-7.0

· **Melting point/Melting range:** 0 °C (32 °F)

· **Boiling point/Boiling range:** >100 °C (>212 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Auto-ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits**

· **Lower:** Not determined.

· **Upper:** Not determined.

· **Oxidizing properties:** Non-oxidizing.

· **Vapor pressure:** Not determined.

· **Density:** Not determined.

· **Relative density:** Not determined.

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

### 10 Stability and reactivity

- **Reactivity:** The product is non-reactive under normal conditions of use, storage and transport.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** Reacts with acids, alkalis and oxidizing agents.
- **Conditions to avoid** Do not allow product to freeze.
- **Incompatible materials** Oxidizers, strong bases, strong acids
- **Hazardous decomposition products**  
Carbon monoxide and carbon dioxide  
Nitrogen oxides (NOx)  
Small quantities of formaldehyde may be formed.

### 11 Toxicological information

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

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

**924-42-5 N-(hydroxymethyl)acrylamide**

Oral	LD50	474 mg/kg (rat)
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**79-06-1 acrylamide**

Oral	LD50	124 mg/kg (rat)
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Dermal	LD50	400 mg/kg (rat)
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- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Irritating effect.
- **Sensitization:** Contains N-(hydroxymethyl)acrylamide, acrylamide. May produce an allergic reaction.
- **Carcinogenic categories**

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

50-00-0	formaldehyde	1
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- **NTP (National Toxicology Program):**

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79-06-1	acrylamide	R
50-00-0	formaldehyde	K

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

50-00-0	formaldehyde
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· **Probable route(s) of exposure:**

- Ingestion.
- Eye contact.
- Skin contact.

· **Germ cell mutagenicity:** May cause genetic defects.

· **Carcinogenicity:** May cause cancer.

· **Reproductive toxicity:** Suspected of damaging fertility or the unborn child.

· **STOT-single exposure:** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

· **Aspiration hazard:** Based on available data, the classification criteria are not met.

### 12 Ecological information

· **Toxicity**

- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.

· **Additional ecological information**

· **General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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

### 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

· **Uncleaned packagings**

- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

· **UN-Number**

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· **DOT, ADR, IMDG, IATA** Not regulated.

· **UN proper shipping name**  
· **DOT, ADR, IMDG, IATA** Not regulated.

· **Transport hazard class(es)**  
· **DOT, ADR, IMDG, IATA**  
· **Class** Not regulated.

· **Packing group**  
· **DOT, ADR, IMDG, IATA** Not regulated.

· **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.

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

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

79-06-1 | acrylamide

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

None of the ingredients are listed.

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

All ingredients are listed or exempt.

· **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

50-00-0 | formaldehyde 15000

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

924-42-5 | N-(hydroxymethyl)acrylamide

79-06-1 | acrylamide

50-00-0 | formaldehyde

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

None of the ingredients are listed.

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

79-06-1 | acrylamide

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

79-06-1	acrylamide
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· **EPA (Environmental Protection Agency):**

79-06-1	acrylamide			
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· **IARC (International Agency for Research on Cancer):**

79-06-1	acrylamide			
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2A

50-00-0	formaldehyde			
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· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

79-06-1	acrylamide			
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50-00-0	formaldehyde			
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### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** March 16, 2018 / -

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 1A: Germ cell mutagenicity – Category 1A

Muta. 1B: Germ cell mutagenicity – Category 1B

Carc. 1B: Carcinogenicity – Category 1B

Repr. 2: Reproductive toxicity – Category 2

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

· **Sources**

Website, European Chemicals Agency ([echa.europa.eu](http://echa.europa.eu))

Website, US EPA Substance Registry Services ([ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do))

Website, Chemical Abstracts Registry, American Chemical Society ([www.cas.org](http://www.cas.org))

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

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