

According to 190/2006/EC (REACH), 1272/2008/EC (CLP) and GHS

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SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING**1.1 PRODUCT IDENTIFIER/TRADE NAME:**STAR-LTCA**1.2 RELIVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:**

No further relevant information available.

Application of the Substance / the Mixture: Low Temperature Cure Additive for Sealcoatings**1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:**

Manufacturer/Supplier: Specialty Technology And Research, Incorporated (S.T.A.R., Inc.)
1150 Milepost Drive, Columbus, Ohio 43228
Tel: +1-614-870-0744 • Fax: +1-614-870-0598 • Toll Free +1-800-759-1912
Web Site: www.starseal.com

1.4 EMERGENCY TELEPHONE NUMBER:

ChemTel, Inc.
(800)255-3924, +1(813)248-0585

SECTION 2 HAZARDS IDENTIFICATION**2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

ACUTE ORAL TOXICITY	Category 4
FLAMMABLE LIQUIDS	Category 2
EYE IRRITATION	Category 2A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects)	Category 3
SPECIFIC TARGET ORGAN TOXICITY - (REPEATED EXPOSURE)	Category 2
Target Organs - Kidney, Liver.	

2.2 Label Elements**Hazard Pictograms:****Signal word** Danger**Hazard statements**

Harmful if swallowed.
May form explosive mixtures with air.
Highly flammable liquid and vapor.
Causes serious eye irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

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Precautionary statements:

Avoid release to environment.

Avoid breathing mist/vapors/spray.

Use personal protective equipment as required.

Do not handle until all safety precautions have been read and understood.

If exposed or concerned: Get medical advice/attention.

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin well with water/shower.

IF SWALLOWED, rinse mouth. DO NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

In case of fire: Use for extinction: CO₂, Powder. Do not use water.

Store in a well-ventilated place. Keep containers tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3

COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance- Not applicable

3.2 Mixtures Proprietary

Additional information:

The identity of the ingredient(s) and/or exact percentage(s) are being withheld as a trade secret.

For the wording of the listed risk phrases refer to section 16.

SECTION 4

FIRST AID MEASURES

4.1 Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation:

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Remove any clothing soiled by the product.

If skin irritation continues, consult a doctor.

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; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions

Serious irritant effect on skin.

Can cause frostbite.

Serious irritant effect on eyes.

Can cause Central Nervous System (CNS) depression.

4.3 Indication of any immediate medical attention and special treatment needed

If swallowed, gastric irrigation with added, difficulty in breathing.

SECTION 5**FIRE FIGHTING MEASURES****5.1 Extinguishing media**

Suitable extinguishing agents: CO₂, Dry Chemical, Water spray (fog), Alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

5.3 Advice for firefighters**Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information No further relevant information available

SECTION 6**ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

No flares, smoking or flames in hazard area.

Particular danger of slipping on leaked/spilled product.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

6.2 Environmental precautions:

Do not allow to enter soil, sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up:

Absorb with inert dry material (sand, earth, vermiculite or diatomaceous earth) and place it in an appropriate waste disposal container.

Dispose contaminated material as waste according to item 13.

Send for recovery or disposal in suitable receptacles.

6.4 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.

SECTION 7**HANDLING AND STORAGE****7.1 Precautions for safe handling**

Use personal protective equipment as required. Use only non-sparking tools.

Do not breathe mist/vapors/spray. Avoid contact with eyes, skin and clothing. Do not ingest.

Use only in well ventilated areas.

Open and handle receptacle with care.

Information about fire - and explosion protection: Keep respiratory protective device available.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Keep out of the reach of children. Keep in tightly closed and sealed containers.

Information about storage in one common storage facility:

Store away from food and drinks.

Store away from oxidizing agents, strong acids, strong bases, and aldehydes.

Store away from heat, sparks or flames.

Further information about storage conditions:

Store in cool, dry conditions in well-sealed receptacles.

7.3 Specific end use(s) No further relevant information available.

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

67-63-0 Isopropyl Alcohol

ACGIH TLV (USA)	TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes
OSHA PEL (USA)	TWA: 400 ppm or 980 mg/m ³ 8 hours STEL: 500 ppm or 1225 mg/m ³ 15 minutes
NIOSH REL (USA)	TWA: 400 ppm or 980 mg/m ³ 10 hours STEL: 500 ppm or 1225 mg/m ³ 15 minutes

107-21-1 Ethylene Glycol

ACGIH TLV	TWA: 25 ppm STEL: 50 ppm or 10 mg/m ³
OSHA PEL	(Vacated) Ceiling: 50 ppm (Vacated) Ceiling: 125 mg/m ³
OEL (MEXICO)	TWA ceiling: 100 mg/m ³

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from food and drinks.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Pregnant women should strictly avoid inhalation or skin contact.

Respiratory protection:

Not required under normal conditions of use.

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

Use suitable respiratory protective device in case of insufficient ventilation.

For spills, respiratory protection may be advisable.

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Protection of hands:

Protective gloves



The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Safety glasses



Body protection:

Protective work clothing

Limitation and supervision of exposure into the environment

No further relevant information available.

Risk management measures

See Section 7 for additional information.

8.3 Other Information: No further relevant information available.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information:

Appearance:

Form Liquid

Color Colorless

Odor Alcohol like

Odor Threshold Not determined

Ph Value Not determined

Change in Condition:

Melting point/Melting Range Not Determined

Boiling point/Boiling range Undetermined

Flash Point Not Determined

Flammability (Solid Gaseous) Not Applicable

Auto/Self-Ignition Temperature Not determined

Decomposition Temperature Not determined

Self-Igniting Product is not self-igniting.

Explosion Limits:

Lower..... Not determined
Upper..... Not determined

Vapor Pressure..... Not determined

Density at 20° C 0.94 – 0.96 g/cm³

Relative Density..... Not Determined

Vapor Density Not Determined

Evaporation Rate..... Not Determined

Solubility in/Miscibility with Water Dilutable with water

Partition Coefficient (n-octanol/water) Not Determined

Viscosity:

Dynamic Not Determined
Kinematic..... Not Determined

9.2 Other Information: No further relevant information available

SECTION 10

STABILITY AND REACTIVITY

10.1 Reactivity

None Known.

10.2 Chemical stability

Thermal decomposition/conditions to be avoided:

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

Toxic fumes may be released if heated above the decomposition point.

10.4 Conditions to avoid: Avoid sources of ignition. Avoid heat. Avoid incompatible products.

10.5 Incompatible materials: Strong oxidizing agents, Strong acids, Strong bases, Aldehydes

10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11

TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

67-63-0 Isopropyl Alcohol

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rabbit)
Inhalation Gas	LC50	45248 ppm (rat)

107-21-1 Ethylene Glycol

Oral	LD50	7712 mg/kg (rat)
Dermal	LD50	9530 µL/kg (rabbit) 10600 mg/Kg (rat) >3500 mg/Kg (mice)
Inhalation Gas	LC50	> 2.5 mg/L (rat)

Primary irritant effect:

On the skin: Slight irritant effect on skin and mucous membranes.

On the eye: Slight irritant effect on eyes.

Sensitization: Sensitization possible through skin contact.

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Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Can cause central nervous system (CNS) depression.

May cause drowsiness or dizziness.

May cause respiratory tract irritation.

Sensitization: Sensitization possible by skin contact.

Repeated dose toxicity:

May cause damage to organs through prolonged or repeated exposure.

Repeated exposures may result in skin and/or respiratory sensitivity.

SECTION 12

ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity: Toxic for aquatic organisms.

12.2 Persistence and degradability-

No further relevant information available.

12.3 Bio-accumulative potential-

No further relevant information available.

12.4 Mobility in soil-

No further relevant information available.

12.5 Results of PBT and vPvB assessment-

None available

12.6 Other adverse effects:

No further relevant information available.

SECTION 13

DISPOSAL CONSIDERATION

13.1 Waste treatment methods

Recommendation:

Must not be disposed together with household garbage. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally.

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 packaging:

Recommendation:

Disposal must be made according to official regulations.

SECTION 14

TRANSPORTATION INFORMATION

In accordance with DOT.

14.1 UN-Number

Not Applicable.

14.2 UN proper shipping name

Not Applicable

14.3 Additional Information

None available

14.4 IATA

Not regulated as dangerous goods.

14.5 IMDG

Not regulated as dangerous goods.

Special Transport Precaution-

Read all safety precautions before handling the product.

SECTION 15

REGULATORY INFORMATION

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

Section 313 (Specific toxic chemical listings):

107-21-1	Ethylene Glycol
67-63-0	Isopropyl Alcohol

TSCA (Toxic Substances Control Act):

All ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer:
Not applicable.

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 is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

SECTION 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.

Relevant phrases

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
R20	Harmful by inhalation.
R22	Harmful if swallowed.
R43	May cause sensitization by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (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

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GHS:	Globally Harmonized System of Classification and Labeling of Chemicals
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)
WHMIS:	Workplace Hazardous Materials Information System (Canada)
DNEL:	Derived No-Effect Level (REACH)
PNEC:	Predicted No-Effect Concentration (REACH)
LC50:	Lethal concentration, 50 percent
LD50:	Lethal dose, 50 percent
Acute Tox. 4:	Acute toxicity, Hazard Category 4
Skin Corr. 1B:	Skin corrosion/irritation, Hazard Category 1B
Eye Dam. 1:	Serious eye damage/eye irritation, Hazard Category 1
Skin Sens. 1:	Sensitization - Skin, Hazard Category 1
STOT RE 2:	Specific target organ toxicity - Repeated exposure, Hazard Category 2
Aquatic Acute 1:	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1:	Hazardous to the aquatic environment - Chronic Hazard, Category 1

Sources

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