

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

Printing Date 25.08.2014

Revision 25.08.2014

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER/TRADE NAME:

STAR-SEAL SUPREME

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: Sealcoating for Pavements

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:

CLASSIFICATION ACCORDING TO REGULATION (EC) NO. 1272/2008

The following classifications are applicable only to the general GHS regulations and not the Specific CLP regulation: H360

The following hazard statements are applicable only to the EU regulations and not the US GHS regulation: H360FD, H400, H410

Repr. 1 H360: May damage fertility of the unborn child



Health Hazard

Muta.	1B	H340	May cause genetic defects.
Carc.	1B	H350	May cause cancer.
Repr.	1B	H360FD	May damage fertility. May damage the unborn child.



Environment

Aquatic Acute	1	H400	Very toxic to aquatic life.
Aquatic Chronic	1	H410	Very toxic to aquatic life with long lasting effects



Skin Sens. 1 H317 May cause an allergic skin reaction.

(Continued on page 2)

(Continued from page 1)

CLASSIFICATION ACCORDING TO DIRECTIVE 67/548/ECC or DIRECTIVE 1999/45/EC



T; Toxic
R45-46-60-61: May cause cancer. May cause heritable genetic damage. May impair fertility. May cause harm to the unborn child.



Xi; Sensitizing
R43 May cause sensitization by skin contact.



N; Dangerous to the environment
R50/53; Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment..

Information concerning particular hazards for human and environment:

The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

2.2 Label Elements

Labeling according to Regulation (EC) No 1272/2008

The product is classified and labeled according to the CLP regulation.

Hazard pictograms



This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS).



GHS07 GHS08 GHS09

Signal word Danger

Hazard-determining components of labelling:

Pitch, coal tar, high-temp.
benzo[a]pyrene
chrysene
Dibenzo(a,h)pyrene

Hazard statements

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H360FD, H410.

The following Hazard Statements are applicable only to the general GHS regulations and not the specific CLP regulation: H360.

(Continued on page 3)

(Continued from page 2)

- H360 May damage fertility or the unborn child.
- H317 May cause an allergic skin reaction.
- H340 May cause genetic defects.
- H350 May cause cancer.
- H360FD May damage fertility. May damage the unborn child.
- H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

- P261 Avoid breathing mist/vapors/spray.
- P281 Use personal protective equipment as required.
- P202 Do not handle until all safety precautions have been read and understood.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

Restricted to professional users.

Hazard description:

WHMIS-symbols:

D2A - Very toxic material causing other toxic effects



NFPA ratings (Scale 0-4)



Health = 2
Fire = 0
Reactivity = 0

HMIS ratings (Scale 0-4)



Health = *2
Fire = 0
Reactivity = 0

* - Indicates a long term health hazard from repeated or prolonged exposures.

HMIS Long Term Health Hazard Substances

14808-60-7 quartz
91-20-3 naphthalene
50-32-8 benzo[a]pyrene
65996-93-2 Pitch, coal tar, high-temp

(Continued on page 4)

(Continued from page 3)

2.3 Other Hazards

Results of PBT and vPvB assessment

PBT

65996-93-2 Pitch, coal tar, high-temp.

vPvB: Not applicable.

SECTION 3

COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions

Dangerous components:

CAS: 65996-93-2 EINECS: 266-028-2 Index number: 648-055-00-5	Pitch, coal tar, high-temp. PBT ☠ T Carc. Cat. 2 R45 ☠ Carc. 1B, H350	20-30%
CAS: 1332-58-7 EC number: 310-194-1	Kaolin substance with a Community workplace exposure limit	15-20%
CAS: 14808-60-7	quartz substance with a Community workplace exposure limit	3-7%
CAS: 206-44-0 EINECS: 205-912-4	fluoranthene ☠ Xn R20; ☠ N R50/53 ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410 ☠ Acute Tox. 4, H302	0.5-1.5%
CAS: 91-20-3 EINECS: 202-049-5 Index number: 601-052-00-2	naphthalene ☠ Xn R22-40; ☠ N R50/53 Carc. Cat. 3 ☠ Carc. 2, H351 ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410 ☠ Acute Tox. 4, H302	0.5-1.5%
CAS: 56-55-3 EINECS: 200-280-6 Index number: 601-033-00-9	benz[a]anthracene ☠ T Carc. Cat. 2 R45; ☠ N R50/53 ☠ Carc. 1B, H350 ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	0.1-1%
CAS: 218-01-9 EINECS: 205-923-4 Index number: 601-048-00-0	chrysene ☠ T Carc. Cat. 2 R45; ☠ Xn R68; ☠ N R50/53 Muta. Cat. 3 ☠ Muta. 2, H341; Carc. 1B, H350 ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	0.1-1%

(Continued on page 5)

(Continued from page 4)

CAS: 50-32-8 EINECS: 200-028-5 Index number: 601-032-00-3	benzo[a]pyrene ☠ T Carc. Cat. 2, Muta. Cat. 2, Repr. Cat. 2 R45-46-60-61; ☒ Xi R43; ☠ N R50/53 ⚠ Muta. 1B, H340; Carc. 1B, H350; Repr. 1B, H360FD ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410 ⚠ Skin Sens. 1, H317	0.1-1%
CAS: 193-39-5 EINECS: 205-893-2	indeno[1,2,3-cd]pyrene ⚠ Carc. 2, H351	0.1-1%
CAS: 205-82-3 EINECS: 205-910-3 Index number: 601-035-00-X	benzo[j]fluoranthene ☠ T Carc. Cat. 2 R45; ☠ N R50/53 ⚠ Carc. 1B, H350 ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	0.1-1%
CAS: 189-64-0 EINECS: 205-878-0	dibenzo(a,h)pyrene ⚠ Muta. 2, H341; Carc. 1B, H350; STOT RE 2, H373	0.1-1%
CAS: 207-08-9 EINECS: 205-916-6 Index number: 601-036-00-5	benzo[k]fluoranthene ☠ T Carc. Cat. 2 R45; ☠ N R50/53 ⚠ Carc. 1B, H350 ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	0.1-1%
CAS: 189-55-9	dibenzo(a,i)pyrene Carc. 2, H351	0.1-1%
CAS: Proprietary EINECS: Proprietary	alkoxylated fatty amines ☠ C R34; ☒ Xn R22 ⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318 ⚠ Aquatic Acute 1, H400 ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	0.1-1%

SVHC

65996-93-2 Pitch, coal tar, high-temp.

Additional information: 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.

After skin contact:

Do not pull solidified product off the skin.
Immediately wash with water and soap and rinse thoroughly.
Remove any clothing soiled by the product.
If skin irritation continues, consult a doctor.

(Continued on page 6)

(Continued from page 5)

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

Slight irritant effect on skin and mucous membranes.

Slight irritant effect on eyes.

Gastric or intestinal disorders.

Hazards

Carcinogenic.

May damage fertility or the unborn child.

Possible risk of irreversible effects.

4.3 Indication of any immediate medical attention and special treatment needed

If swallowed, gastric irrigation with added, activated carbon.

May produce a nephrotoxic / hepatotoxic effect.

Contains benzo[a]pyrene. May produce an allergic reaction.

SECTION 5

FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents: Water

5.2 Special hazards arising from the substance or mixture

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

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.

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 sewers/ surface or ground water.

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

(Continued on page 7)

(Continued from page 6)

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Pick up mechanically.
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 only in well ventilated areas.
Open and handle receptacle with care.
Prevent formation of aerosols.

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: No special requirements.

Information about storage in one common storage facility:

Store away from foodstuffs.
Store away from oxidizing agents.
Do not store together with acids.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.
Protect from frost.

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

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

65996-93-2 Pitch, coal tar, high-temp.

PEL (USA)	Long-term value: 0.2 mg/m ³
REL (USA)	Long-term value: 0.1* mg/m ³ *Cyclohexane-extrble. fraction; Pocket Guide Apps. A+C
TLV (USA)	Long-term value: 0.2 mg/m ³ BEIp
EL (Canada)	Long-term value: 0.2 mg/m ³ soluble aerosol; ACGIH A1; IARC 1
EV (Canada)	Long-term value: 0.2 mg/m ³ as total benzene-soluble compounds

(Continued on page 8)

(Continued from page 7)

1332-58-7 Kaolin	
PEL (USA)	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV (USA)	Long-term value: 2* mg/m ³ E; as respirable fraction
EL (Canada)	Long-term value: 2 mg/m ³
EV (Canada)	Long-term value: 2(D) mg/m ³ respirable
14808-60-7 quartz	
PEL(USA)	see Quartz listing
REL (USA)	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV (USA)	Long-term value: 0.025* mg/m ³ *as respirable fraction
EL (Canada)	Long-term value: 0.025 mg/m ³ ACGIH A2; IARC 1
EV (Canada)	Long-term value: 0.10* mg/m ³ *respirable fraction
91-20-3 naphthalene	
IOELV (EU)	Long-term value: 30 mg/m ³ , 10 ppm
PEL (USA)	Long-term value: 50 mg/m ³ , 10 ppm
REL (USA)	Short-term value: 75 mg/m ³ , 15 ppm Long-term value: 50 mg/m ³ , 10 ppm
TLV (USA)	Long-term value: 52 mg/m ³ , 10 ppm Skin; BEI
EL (Canada)	Short-term value: 15 ppm Long-term value: 10 ppm Skin; IARC 2B
EV (Canada)	Short-term value: 78 mg/m ³ , 15 ppm Long-term value: 52 mg/m ³ , 10 ppm
56-55-3 benz[a]anthracene	
TLV (USA)	L; BEIp
EL (Canada)	ACGIH A2; IARC 2B
218-01-9 chrysene	
PEL (USA)	Long-term value: 0.2 mg/m ³ see Coal Tar Pitch Volatiles
REL (USA)	Long-term value: 0.1* mg/m ³ *Cyclohexane-extrble. fraction; Pocket Guide Apps. A+C
TLV (USA)	L, BEIp
EL (Canada)	IARC 2B

(Continued on page 9)

(Continued from page 8)

50-32-8 benzo[a]pyrene	
PEL (USA)	Long-term value: 0.2 mg/m ³ see Coal tar pitch volatiles
REL (USA)	Long-term value: 0.1 mg/m ³ Coal tar pitch volatile; Pocket Guide Apps. A+C
TLV (USA)	L; BEIp
EL (Canada)	ACGIH A2; IARC 1

DNELs No further relevant information available.

PNECs No further relevant information available.

Ingredients with biological limit values:	
65996-93-2 Pitch, coal tar, high-temp.	
BEI (USA)	- Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)
56-55-3 benz[a]anthracene	
BEI (USA)	- Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)
218-01-9 chrysene	
BEI (USA)	- Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)
50-32-8 benzo[a]pyrene	
BEI (USA)	- Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)

Additional information: The lists valid during the making were used as basis.

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 foodstuffs, beverages and feed.

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.

(Continued on page 10)

(Continued from page 9)

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.....Heavy Bodied Semi-Fluid Liquid

ColorDark Chocolate Brown

OdorNeutral, Slightly of Refined Tar

Odor ThresholdNot determined

Ph ValueNot determined

Change in Condition:

Melting point/Melting RangeNot Determined

Boiling point/Boiling rangeUndetermined

Flash Point.....Not Applicable

Flammability (Solid Gaseous).....Not Applicable

Auto/Self-Ignition TemperatureNot determined

Decomposition TemperatureNot determined

(Continued on page 11)

(Continued from page 10)

- Self-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 determined
- Density at 20° C** 1.20 – 1.25 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

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.

Reacts with strong oxidizing agents.

Reacts with strong acids.

10.4 Conditions to avoid: Store away from oxidizing agents.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11

TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

LD/LC50 values relevant for classification:			
206-44-0 fluoranthene			
Oral	LD50	2000 mg/kg	(rat)
Dermal	LD50	3180 mg/kg	(rabbit)
91-20-3 naphthalene			
Oral	LD50	490 mg/kg	(rat)
Dermal	LD50	5000 mg/kg	(rat)

(Continued on page 12)

(Continued from page 11)

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.

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:

Irritant

Danger through skin adsorption.

The product can cause inheritable damage.

Toxic and/or corrosive effects may be delayed up to 24 hours.

May cause genetic defects.

May cause cancer.

May damage fertility or the unborn child.

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.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

Muta. 1B, Carc. 1B, Repr. 1B

SECTION 12

ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity:

Toxic for aquatic organisms

206-44-0 fluoranthene

LC50 0.0077 mg/l (Oncorhynchus mykiss) (96h)

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark:

Very toxic for fish

The product is oxygen-consuming. The declared action may be partly caused by lack of oxygen.

Due to mechanical actions of the product (e.g. agglutinations) damages may occur.

Additional ecological information:

General notes:

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

12.5 Results of PBT and vPvB assessment

PBT:

65996-93-2 Pitch, coal tar, high-temp.

(Continued on page 13)

(Continued from page 12)

vPvB: Not applicable.

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. Do not allow product to reach sewage system.
Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
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 packaging:

Recommendation:

Disposal must be made according to official regulations.

SECTION 14

TRANSPORTATION INFORMATION

14.1 UN-Number

DOT

UN3082

Classification as a MARINE POLLUTANT is based on MARPOL and DOT rules. Labeling as a MARINE POLLUTANT is not required for non-bulk single package shipments by motor vehicle, rail car or aircraft. Bulk packaging consists of a maximum capacity of greater than 450L (119 gallons) for a liquid and a maximum net mass greater than 400kg (882 pounds) for a solid.

ADR, IMDG, IATA

UN3082

14.2 UN proper shipping name

DOT

Environmentally hazardous substances, liquid, n.o.s. (Naphthalene, crude, fluoranthene)

ADR

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NAPHTHALENE, CRUDE, fluoranthene)

IMDG

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NAPHTHALENE, CRUDE, fluoranthene), MARINE POLLUTANT

IATA

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NAPHTHALENE, CRUDE, fluoranthene)

(Continued on page 14)

(Continued from page 13)

14.3 Transport hazard class(es)

DOT, IMDG, IATA



Class
Label

9 Miscellaneous dangerous substances and articles.
9

ADR



Class
Label

9 (M6) Miscellaneous dangerous substances and articles.
9

14.4 Packing group

DOT, ADR, IMDG, IATA

III

14.5 Environmental hazards:

Marine pollutant:

Product contains environmentally hazardous substances: benz[a]anthracene
Yes

Special marking (ADR):

Symbol (fish and tree)

Special marking (IATA):

Symbol (fish and tree)

Symbol (fish and tree)

14.6 Special precautions for user:

Danger code (Kemler):

Warning: Miscellaneous dangerous substances and articles.

EMS Number:

90

F-A,S-F

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ)

5L

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

Transport category

3

Tunnel restriction code

E

IMDG

Limited quantities (LQ)

5L

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

UN "Model Regulation":

UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NAPHTHALENE, CRUDE, fluoranthene), 9, III

(Continued on page 15)

SECTION 15

REGULATORY INFORMATION

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

SARA

Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

206-44-0	fluoranthene
91-20-3	naphthalene
56-55-3	benz[a]anthracene
218-01-9	chrysene
50-32-8	benzo[a]pyrene
193-39-5	indeno[1,2,3-cd]pyrene
205-82-3	benzo[j]fluoranthene
189-64-0	Dibenzo(a,h)pyrene
207-08-9	benzo[k]fluoranthene
189-55-9	Dibenzo(a,i)pyrene

TSCA (Toxic Substances Control Act):

All ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer:

Reference to Crystalline Silica and/or Quartz is based on unbound respirable particles and is not generally applicable to product as supplied.

14808-60-7	quartz
91-20-3	naphthalene
56-55-3	benz[a]anthracene
218-01-9	chrysene
50-32-8	benzo[a]pyrene
193-39-5	indeno[1,2,3-cd]pyrene
205-82-3	benzo[j]fluoranthene
189-64-0	Dibenzo(a,h)pyrene
207-08-9	benzo[k]fluoranthene
189-55-9	Dibenzo(a,i)pyrene

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

(Continued from page 15)

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.

Carcinogenic Categories

EPA (Environmental Protection Agency)

206-44-0	fluoranthene	D
91-20-3	naphthalene	C, CBD
56-55-3	benz[a]anthracene	B2
218-01-9	chrysene	B2
50-32-8	benzo[a]pyrene	B2
193-39-5	indeno[1,2,3-cd]pyrene	B2
207-08-9	benzo[k]fluoranthene	B2

IARC (International Agency for Research on Cancer)

65996-93-2	Pitch, coal tar, high-temp.	1
14808-60-7	quartz	1
206-44-0	fluoranthene	3
91-20-3	naphthalene	2B
56-55-3	benz[a]anthracene	2B
218-01-9	chrysene	2B
50-32-8	benzo[a]pyrene	1
193-39-5	indeno[1,2,3-cd]pyrene	2B
205-82-3	benzo[j]fluoranthene	2B
189-64-0	Dibenzo(a,h)pyrene	2B
207-08-9	benzo[k]fluoranthene	2B
189-55-9	Dibenzo(a,i)pyrene	2B

TLV (Threshold Limit Value established by ACGIH)

65996-93-2	Pitch, coal tar, high-temp.	A1
1332-58-7	Kaolin	A4
14808-60-7	quartz	A2
91-20-3	naphthalene	A4
56-55-3	benz[a]anthracene	A2
218-01-9	chrysene	A3
50-32-8	benzo[a]pyrene	A2

NIOSH-Ca (National Institute for Occupational Safety and Health)

65996-93-2	Pitch, coal tar, high-temp.
14808-60-7	quartz
218-01-9	chrysene
50-32-8	benzo[a]pyrene

(Continued on page 17)

(Continued from page 16)

Canada

Canadian Domestic Substances List (DSL)

All ingredients are listed.

Canadian Ingredient Disclosure list (limit 0.1%)

65996-93-2 Pitch, coal tar, high-temp.

56-55-3 benz[a]anthracene

218-01-9 chrysene

50-32-8 benzo[a]pyrene

193-39-5 indeno[1,2,3-cd]pyrene

189-64-0 Dibenzo(a,h)pyrene

189-55-9 Dibenzo(a,i)pyrene

Canadian Ingredient Disclosure list (limit 1%)

14808-60-7 quartz

206-44-0 fluoranthene

91-20-3 naphthalene

Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

Other regulations, limitations and prohibitive regulations

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Substances of very high concern (SVHC) according to REACH, Article 57

65996-93-2 Pitch, coal tar, high-temp.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.
- H340 May cause genetic defects.
- H341 Suspected of causing genetic defects.
- H350 May cause cancer.
- H351 Suspected of causing cancer.
- H360FD May damage fertility. May damage the unborn child.
- 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.

(Continued on page 18)

(Continued from page 17)

R20	Harmful by inhalation.
R22	Harmful if swallowed.
R34	Causes burns.
R40	Limited evidence of a carcinogenic effect.
R43	May cause sensitization by skin contact.
R45	May cause cancer.
R46	May cause heritable genetic damage.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R60	May impair fertility.
R61	May cause harm to the unborn child.
R68	Possible risk of irreversible effects.

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

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

Muta. 1B: Germ cell mutagenicity, Hazard Category 1B

Muta. 2: Germ cell mutagenicity, Hazard Category 2

Carc. 1B: Carcinogenicity, Hazard Category 1B

Carc. 2: Carcinogenicity, Hazard Category 2

Repr. 1B: Reproductive toxicity, Hazard Category 1B

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

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com

- END OF SDS -