

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 27, 2018

Revision: November 27, 2018

1 Identification

- **Product identifier**
- **Trade name:** Smart Flash One®
- **Other means of identification:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Mono component waterproofing bitumen / polyurethane resin
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
CertainTeed Corporation
20 Moores Road
Malvern, PA 19355
610-893-6000
www.certainteed.com
CertainTeed-EHS@saint-gobain.com
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)
1-300-954-583 (Australia)
0-800-591-6042 (Brazil)
400-120-0751 (China)
000-800-100-4086 (India)
01-800-099-0731 (Mexico)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Liq. 2 H225 Highly flammable liquid and vapor.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Carc. 2 H351 Suspected of causing cancer.
Repr. 2 H361 Suspected of damaging fertility or the unborn child. Route of exposure: Inhalation.
STOT SE 3 H336 May cause drowsiness or dizziness.
STOT RE 2 H373 May cause damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalation.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**

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GHS02 GHS07 GHS08

· **Signal word:** Danger

· **Hazard statements:**

H225 Highly flammable liquid and vapor.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child. Route of exposure: Inhalation.

H336 May cause drowsiness or dizziness.

H373 May cause damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalation.

· **Precautionary statements:**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe vapors.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection.

P285 In case of inadequate ventilation wear respiratory protection.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.

P363 Wash contaminated clothing before reuse.

P370+P378 In case of fire: Use foam, powder, or carbon dioxide for extinction.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

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3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Components:

8052-42-4	Asphalt ⚠ Carc. 2, H351	10-40%
108-88-3	Toluene ⚠ Flam. Liq. 2, H225 ⚠ Repr. 2, H361; STOT RE 2, H373; Asp. Tox. 1, H304 ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	7-13%
78-93-3	butanone ⚠ Flam. Liq. 2, H225 ⚠ Eye Irrit. 2A, H319; STOT SE 3, H336	5-10%
108-65-6	2-methoxy-1-methylethyl acetate ⚠ Flam. Liq. 3, H226	0.5-1.5%
101-68-8	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	0.1-1%
4083-64-1	4-isocyanatosulphonyltoluene ⚠ Resp. Sens. 1, H334 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	0.1-1%

· Additional information:

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
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.

Provide oxygen treatment if affected person has difficulty breathing.

If experiencing respiratory symptoms: Call a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Wash with soap and water.

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

· After eye contact:

Immediately remove contact lenses if possible.

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:

Asthma attacks

Breathing difficulty

Dizziness

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Coughing

Allergic reactions

Irritant to skin and mucous membranes.

Causes eye irritation.

Gastric or intestinal disorders when ingested.

· **Danger:**

Danger of impaired breathing.

May cause drowsiness or dizziness.

May cause damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalation.

Suspected of damaging fertility or the unborn child. Route of exposure: Inhalation.

Suspected of causing cancer.

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

Medical supervision for at least 48 hours.

Contains 4,4'-methylenediphenyl diisocyanate, 4-isocyanatosulphonyltoluene. May produce an allergic reaction.

Severe allergic skin reaction, bronchial spasms and anaphylactic shock are possible.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

In cases of irritation to the lungs, initial treatment with corticoid steroid inhalants.

If necessary oxygen respiration treatment.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

Gaseous extinguishing agents

Carbon dioxide

Fire-extinguishing powder

Foam

Water fog / haze

· **For safety reasons unsuitable extinguishing agents:**

Water spray

Water stream.

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

Highly flammable liquid and vapor.

During heating or in case of fire poisonous gases are produced.

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· **Additional information:**

Eliminate all ignition sources if safe to do so.

Cool endangered containers with water fog.

6 Accidental release measures

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

Ensure adequate ventilation.

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Keep away from ignition sources.

Wear protective equipment. Keep unprotected persons away.

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

Isolate area and prevent access.

· **Environmental precautions** Do not allow to enter sewers/ surface or ground water.

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

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

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**

· **Precautions for safe handling:**

Avoid splashes or spray in enclosed areas.

Use only in well ventilated areas.

Avoid contact with the eyes and skin.

Open and handle receptacle with care.

Keep out of reach of children.

· **Information about protection against explosions and fires:**

Highly flammable liquid and vapor.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

Flammable gas-air mixtures may be formed in empty containers/receptacles.

· **Conditions for safe storage, including any incompatibilities**

· **Requirements to be met by storerooms and receptacles:**

Avoid storage near extreme heat, ignition sources or open flame.

Store in cool, dry conditions in well sealed receptacles.

· **Information about storage in one common storage facility:**

Store away from foodstuffs.

Do not store together with oxidizing and acidic materials.

· **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:**

8052-42-4 Asphalt

REL (USA)

Ceiling limit value: 5* mg/m³

*15-min; See Pocket Guide App. A

TLV (USA)

Long-term value: 0.5* mg/m³

*inh. fraction; as benzene-soluble aerosol; BEIp

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EL (Canada)	Long-term value: 0.5 mg/m ³ inhalable; IARC 2A: oxidized; IARC 2B: straight-run
EV (Canada)	Long-term value: 0.5 mg/m ³ fume, as benzene-soluble aerosol, inhalable
LMPE (Mexico)	Long-term value: 0.5* mg/m ³ A4, IBEp; *fracción inhalable

108-88-3 Toluene

PEL (USA)	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
REL (USA)	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm
TLV (USA)	Long-term value: 75 mg/m ³ , 20 ppm BEI
EL (Canada)	Long-term value: 20 ppm R
EV (Canada)	Long-term value: 20 ppm
LMPE (Mexico)	Long-term value: 20 ppm A4, IBE

78-93-3 butanone

PEL (USA)	Long-term value: 590 mg/m ³ , 200 ppm
REL (USA)	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm
TLV (USA)	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm BEI
EL (Canada)	Short-term value: 100 ppm Long-term value: 50 ppm
EV (Canada)	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm
LMPE (Mexico)	Short-term value: 300 ppm Long-term value: 200 ppm IBE

108-65-6 2-methoxy-1-methylethyl acetate

WEEL (USA)	Long-term value: 50 ppm
EL (Canada)	Short-term value: 75 ppm Long-term value: 50 ppm
EV (Canada)	Long-term value: 270 mg/m ³ , 50 ppm

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

PEL (USA)	Ceiling limit value: 0.2 mg/m ³ , 0.02 ppm
REL (USA)	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 (USA)	Long-term value: 0.051 mg/m ³ , 0.005 ppm
EL (Canada)	Long-term value: 0.005 ppm

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EV (Canada)	Ceiling limit value: 0.01 ppm Skin; S(R)
LMPE (Mexico)	Long-term value: 0.005 ppm Ceiling limit value: 0.02 ppm Long-term value: 0.005 ppm

Ingredients with biological limit values:

8052-42-4 Asphalt

BEI (USA)	- Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)
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108-88-3 Toluene

BEI (USA)	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene
	0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene
	0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

78-93-3 butanone

BEI (USA)	2 mg/L Medium: urine Time: end of shift Parameter: MEK
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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 and skin.
Avoid breathing vapors.

Engineering controls: Provide adequate ventilation.

Breathing equipment:



Combined Organic Vapor and Particulate Respirator is recommended for use during all processing activities.

Suitable respiratory protective device recommended.

Protection of hands:

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Protective gloves

When needed, wear gloves for protection against mechanical hazards.

· **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.

· **Risk management measures** No relevant information available.

9 Physical and chemical properties

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

· **Appearance:**

· **Form:** Liquid

· **Color:** Brown

· **Odor:** Solvent-like

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Melting point/Melting range:** Not determined.

· **Boiling point/Boiling range:** >35 °C (>95 °F)

· **Flash point:** 10.5 °C (50.9 °F)

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

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

· **Decomposition temperature:** Not determined.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits**

· **Lower:** Not determined.

· **Upper:** Not determined.

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

· **Vapor pressure:** Not determined.

· **Density:**

· **Relative density:** Not determined.

· **Vapor density:** >1

· **Evaporation rate:** Not determined.

· **Solubility in / Miscibility with**

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Water: Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity**

Dynamic: 30000 cP

Kinematic at 40 °C (104 °F): >20.5 mm²/s

· **VOC content:** 225 g/L

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

10 Stability and reactivity

· **Reactivity:** No relevant information available.

· **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**

Used empty containers may contain product gases which form explosive mixtures with air.

Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.

Highly flammable liquid and vapor.

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

· **Conditions to avoid**

Keep ignition sources away - Do not smoke.

Store away from oxidizing agents.

· **Incompatible materials** No relevant information available.

· **Hazardous decomposition products**

Carbon monoxide and carbon dioxide

Hydrogen cyanide (prussic acid)

11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:** Based on available data, the classification criteria are not met.

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

108-88-3 Toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4h	5320 mg/l (mouse)

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

Oral	LD50	2200 mg/kg (mouse)
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· **Primary irritant effect:**

· **On the skin:** Irritant to skin and mucous membranes.

· **On the eye:** Causes eye irritation.

· **Sensitization:** May cause sensitisation by inhalation and skin contact.

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

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8052-42-4 Asphalt

2B

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

None of the ingredients are listed.

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

None of the ingredients are listed.

· **Probable route(s) of exposure:**

Ingestion.

Inhalation.

Eye contact.

Skin contact.

· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

· **Carcinogenicity:** Suspected of causing cancer.

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

· **STOT-single exposure:** May cause drowsiness or dizziness.

· **STOT-repeated exposure:**

May cause damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalation.

· **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:** Avoid release to the environment.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

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.

· **Uncleaned packagings**

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

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14 Transport information

· **UN-Number**
 · DOT, ADR/RID/ADN, IMDG, IATA UN1263

· **UN proper shipping name**
 · DOT, IATA Paint
 · ADR/RID/ADN, IMDG PAINT

· **Transport hazard class(es)**

· DOT



· Class 3
 · Label 3

· **ADR/RID/ADN**



· Class 3 (F1)
 · Label 3

· **IMDG, IATA**



· Class 3
 · Label 3

· **Packing group**

· DOT, ADR/RID/ADN, IMDG, IATA II

· **Environmental hazards**

· Marine pollutant: No

· **Special precautions for user** Warning: Flammable liquids

· **Danger code (Kemler):** 33

· **EMS Number:** F-E,S-E

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· DOT

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Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· **ADR/RID/ADN**



Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· **IMDG**



Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· **IATA**



Limited Quantity for packages less than 30 kg gross and inner packagings less than 0.5 L each / 1 L net.

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):**

None of the ingredients are listed.

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

108-88-3	Toluene
78-93-3	butanone
101-68-8	4,4'-methylenediphenyl diisocyanate

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

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

Listed under a chemical family; not directly listed by CAS #.

8052-42-4	Asphalt
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· **Chemicals known to cause developmental toxicity for females:**

None of the ingredients are listed.

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

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None of the ingredients are listed.

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

108-88-3	Toluene
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· **EPA (Environmental Protection Agency):**

108-88-3	Toluene	II
78-93-3	butanone	I
101-68-8	4,4'-methylenediphenyl diisocyanate	D, CBD

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

8052-42-4	Asphalt	2B
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· **Canadian Domestic Substances List (DSL) (Substances not listed.):**

All ingredients are listed.

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.

· **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

PBT: Persistent, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health Administration

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

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

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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

Asp. Tox. 1: Aspiration hazard – Category 1

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (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:

ChemTel Inc.

1305 North Florida Avenue

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