1. Product and company identification

Product identifier

Trade name: Crack Testing Agent Developer

Relevant identified uses of the substance or mixture and uses advised against

General use: Technical aerosol.
Reserved for industrial and professional use.

Details of the supplier of the safety data sheet

Company name: WEICON Inc.
Street/POB-No.: 20 Steckle Place, Unit 20
Postal Code, city: Kitchener, Ontario N2E 2C3, CA
WWW: www.weicon.ca
E-mail: info@weicon.ca
Telephone: +1-519-896-5252
Telefax: +1-519-896-5254
Dept. responsible for information:
Product-Safety-Department
Telephone: +49(0)251 / 9322 - 0, Email: msds@weicon.de

Emergency phone number

EMERGENCY CONTACT – Canada (24h): Tel: ++1 866 928 0789 (Toll free)

Transport:
TRANSPORT EMERGENCY CONTACT - Canada (24h): Tel: ++1 866 928 0789 (Toll free)

2. Hazards identification

Emergency overview

Appearance: Form: Aerosol
Color: white
Odor: like acetone

Classification: Flammable Aerosol 1; Compressed Gas; Eye Irritation 2A;
Specific Target Organ Toxicity (Single Exposure) 3;

Hazard symbols:

Signal word: **Danger**

Hazard statements: Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
May cause drowsiness or dizziness.

Precautionary statements: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash hands and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER/doctor if you feel unwell.
If eye irritation persists: Get medical advice/attention.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Protect from sunlight. Store in a well-ventilated place.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Dispose of contents/container to hazardous or special waste collection point.

Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

Hazards not otherwise classified

Potentially explosive mixtures may form if adequate ventilation is not provided.
Inhaling can lead to irritations of the respiratory tract and mucous membrane.
Higher doses may lead to a narcotic effect.
see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterisation: Preparation of active ingredients with propellant

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 67-64-1	Acetone	10 - 25 %	Flammable Liquid 2. Eye Irritation 2A. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 67-63-0	Isopropyl alcohol	10 - 25 %	Flammable Liquid 2. Eye Irritation 2A. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 74-98-6	Propane	10 - 25 %	Flammable Gas 1. Compressed Gas.
CAS 106-97-8	Butane	25 - 50 %	Flammable Gas 1. Compressed Gas.
CAS 75-28-5	Isobutane, pure	1 - 10 %	Flammable Gas 1. Compressed Gas.

4. First aid measures

General information: IF exposed or concerned: Get medical advice/attention. First aider: Pay attention to self-protection! In the event of persistent symptoms seek medical treatment.

In case of inhalation: Move victim to fresh air, put at rest and loosen restrictive clothing.
Seek medical attention.

Following skin contact: After contact with skin, wash immediately with soap and plenty of water. Consult a doctor if skin irritation persists.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.

After swallowing: Immediately get medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

May cause drowsiness or dizziness. Causes serious eye irritation. Inhalation causes narcotic effects/intoxication. Headache, Nausea Inhaling can lead to irritations of the respiratory tract and mucous membrane.

Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:
not applicable

Auto-ignition temperature: not self-igniting

Suitable extinguishing media:
Water fog, alcohol resistant foam, extinguishing powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:
Full water jet

Specific hazards arising from the chemical

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May form dangerous gases and vapours in case of fire. In case of fire may be liberated: Carbon monoxide and carbon dioxide.
Potentially explosive vapor/air mixtures may form.

Protective equipment and precautions for firefighters:
Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing. In case of fire and/or explosion do not breathe fumes.

Additional information: Heating will lead to pressure increase: Danger of bursting and explosion. Cool exposed containers with water spray.
Move undamaged containers from immediate hazard area if it can be done safely.
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Do not allow fire water to penetrate into surface or ground water.
Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

6. Accidental release measures

Personal precautions: Provide adequate ventilation. Do not breathe gas/vapor/spray. Avoid contact with skin and eyes. Eliminate all ignition sources if safe to do so. Wear appropriate protective equipment. Be aware that gases can spread at ground level (heavier than air) and pay attention to the wind direction. Take off immediately all contaminated clothing. Keep unprotected people away. Do not open or incinerate, even when empty. Do not spray into flames or on incandescent objects. Cordon off downwind area at risk and warn inhabitants.

Environmental precautions:
Do not allow to enter into ground-water, surface water or drains.
In case of release, notify competent authorities. Danger of explosion!

Methods for clean-up: Allow small spillages to evaporate provided there is adequate ventilation.
Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Beware of reignition. Thoroughly clean surrounding area.

Additional information: Use explosion-proof equipment and non-sparking tools/utensils.

Leaking cans, cans with spillage, are to be segregated, sprayed to empty state and disposed of. Refer to section 13 (Waste removal)

7. Handling and storage

Handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe gas/vapor/spray.
Avoid contact with skin and eyes. Wear appropriate protective equipment.
Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation.
Take off immediately all contaminated clothing. When handling large quantities, supply emergency spray. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Precautions against fire and explosion:
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source.

Storage

Requirements for storerooms and containers:
Keep container tightly closed and in a well-ventilated place.
Keep container dry. Keep only in the original container.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
storage temperature: 5 °C up to 25 °C. Store containers in upright position.

Hints on joint storage: Keep away from oxidizing agents.
Keep away from food, drink and animal feedingstuffs.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
67-64-1	Acetone	Canada, Alberta: OEL 15 min	1800 mg/m³; 750 ppm
		Canada, Alberta: OEL 8 hour	1200 mg/m³; 500 ppm
		Canada, BC: OEL STEL	500 ppm
		Canada, BC: OEL TWA	250 ppm
		Canada, Québec: VECD	2380 mg/m³; 1000 ppm
		Canada, Québec: VEMP	1190 mg/m³; 500 ppm
		USA: ACGIH: STEL	500 ppm
		USA: ACGIH: TWA	250 ppm
		USA: NIOSH: TWA	590 mg/m³; 250 ppm
		USA: OSHA: TWA	2400 mg/m³; 1000 ppm
67-63-0	Isopropyl alcohol	Canada, Alberta: OEL 15 min	984 mg/m³; 400 ppm
		Canada, Alberta: OEL 8 hour	492 mg/m³; 200 ppm
		Canada, BC: OEL STEL	400 ppm
		Canada, BC: OEL TWA	200 ppm
		Canada, Québec: VECD	1230 mg/m³; 500 ppm
		Canada, Québec: VEMP	985 mg/m³; 400 ppm
		USA: ACGIH: STEL	984 mg/m³; 400 ppm
		USA: ACGIH: TWA	492 mg/m³; 200 ppm
		USA: NIOSH: STEL	1225 mg/m³; 500 ppm
		USA: NIOSH: TWA	980 mg/m³; 400 ppm
		USA: OSHA: TWA	980 mg/m³; 400 ppm
74-98-6	Propane	Canada, Alberta: OEL 8 hour	1000 ppm
		Canada, Québec: VEMP	1800 mg/m³; 1000 ppm
		USA: NIOSH: TWA	1800 mg/m³; 1000 ppm
		USA: OSHA: TWA	1800 mg/m³; 1000 ppm
106-97-8	Butane	Canada, Alberta: OEL 8 hour	1000 ppm
		Canada, BC: OEL STEL	750 ppm
		Canada, BC: OEL TWA	600 ppm
		Canada, Ontario: OEL TWA	800 ppm
		Canada, Québec: VEMP	1900 mg/m³; 800 ppm
		USA: ACGIH: TWA	2370 mg/m³; 1000 ppm
		USA: NIOSH: TWA	1900 mg/m³; 800 ppm
75-28-5	Isobutane, pure	Canada, Ontario: OEL TWA	800 ppm
		USA: ACGIH: TWA	2370 mg/m³; 1000 ppm
		USA: NIOSH: TWA	1900 mg/m³; 800 ppm

Biological limit values:

CAS No.	Designation	Type	Limit value	Parameter	Sampling
67-64-1	Acetone	USA: ACGIH-BEI, urine	25 mg/L	acetone	end of exposure or end of shift
67-63-0	Isopropyl alcohol	USA: ACGIH-BEI, urine	40 mg/L	Acetone in urine	end of shift at end of workweek

Engineering controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment. Use only explosion-proof equipment.
See also information in chapter 7, section storage.

Personal protection equipment (PPE)

Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Skin protection: Flame retardant, antistatic and chemical resistant protective clothing.

Protective gloves according to OSHA Standard - 29 CFR: 1910.138 (Solvent resistant protective gloves).
Glove material: Nitrile rubber - Layer thickness: >= 0.4 mm
Breakthrough time: > 60 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.

If higher concentrations occur: Wear self-contained breathing apparatus.

The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product.

General hygiene considerations:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not pierce or burn, even after use.
Do not breathe gas/vapor/spray. Do not get in eyes, on skin, or on clothing.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Form: Aerosol Color: white
Odor:	like acetone
Odor threshold:	not determined
pH value:	not determined
Melting point/freezing point:	not applicable
Initial boiling point and boiling range:	not applicable
Flash point/flash point range:	not applicable
Evaporation rate:	not applicable
Flammability:	extremely flammable aerosol
Explosion limits:	LEL (Lower Explosion Limit): 1.50 Vol-% UEL (Upper Explosive Limit): 13.00 Vol-%
Vapor pressure:	at 20 °C: 2000 - 5000 hPa
Vapor density:	not determined
Density:	at 20 °C: approx. 0.65 g/cm³
Solubility:	not determined
Water solubility:	slightly soluble
Partition coefficient: n-octanol/water:	not determined
Auto-ignition temperature:	not self-igniting
Thermal decomposition:	No decomposition when used properly.
Viscosity, dynamic:	not determined
Viscosity, kinematic:	not determined

Explosive properties:	Vapors may form explosive mixtures with air. Contains gas under pressure; may explode if heated.
Ignition temperature:	365 °C
Solvent content:	93.6 %

10. Stability and reactivity

Reactivity: Extremely flammable aerosol.
Vapors may form explosive mixtures with air.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions
Contains gas under pressure; may explode if heated.

Conditions to avoid: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Incompatible materials: oxidizing agents

Hazardous decomposition products:
Carbon monoxide and carbon dioxide

Thermal decomposition: No decomposition when used properly.

11. Toxicological information

Toxicological tests

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Eye damage/irritation: Eye Irritation 2A = Causes serious eye irritation.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Based on available data, the classification criteria are not met.

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

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Specific Target Organ Toxicity (Single Exposure) 3 = May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure): Lack of data.

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

Other information: Information about Isopropyl alcohol:
LD50 Rat, oral: 5045 mg/kg bw (OECD 401)
LD50 Rabbit, dermal: 12800 mg/kg (OECD 402)
LC50 Rat, inhalative: > 20 mg/l/4h (OECD 403)

Chronic toxicity carcinogenic effect:
Information about Isopropyl alcohol CAS No. 67-63-0:
IARC Rating: Group 3
OSHA Carcinogen: not listed
NTP Rating: not listed

Symptoms

After contact with skin: Minor irritation effect - does not require labeling.

General remarks

Further hazardous properties cannot be excluded.

12. Ecological information

Ecotoxicity

Further details: No data available

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

Additional ecological information

Volatile organic compounds (VOC):
93.6 % by weight

General information: Do not allow to penetrate into soil, waterbodies or drains.

13. Disposal considerations

Product

Recommendation: Do not pierce or burn, even after use.
Special waste. Dispose of waste according to applicable legislation.
Do not dispose of with household waste.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.
Empty carefully and completely, if possible. Handle empty containers with care.
Incineration may cause explosion.

14. Transport information

USA: Department of Transportation (DOT)

Identification number:	UN1950
Proper shipping name:	UN 1950, AEROSOLS
Hazard class or Division:	2.1
Labels:	2.1
Special provisions:	N82
Packaging – Exceptions:	306
Packaging – Non-bulk:	None
Packaging – Bulk:	None
Quantity limitations – Passenger aircraft / rail:	75 kg
Quantity limitations – Cargo only:	150 kg
Vessel stowage – Location:	A
Vessel stowage – Other:	25, 87, 126

Canada: Transportation of Dangerous Goods (TDG)

UN Number:	UN1950
Shipping name:	UN 1950, AEROSOLS
TDG class:	2.1
Special provisions:	80, 107
Explosive limit and limited quantity index:	1 L
Passenger carrying road or rail index:	75 L

Sea transport (IMDG)

UN number:	UN 1950
Proper shipping name:	UN 1950, AEROSOLS
Class or division, Subsidary risk:	Class 2.1, Subrisk-
Packing Group:	-
EmS:	F-D, S-U
Special provisions:	63, 190, 277, 327, 344, 381,959
Limited quantities:	1000 mL
Excepted quantities:	E0
Contaminated packaging - Instructions:	P207, LP200
Contaminated packaging - Provisions:	PP87, L2
IBC - Instructions:	-
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	-
Tank instructions - Provisions:	-
Stowage and handling:	SW1 SW22
Segregation:	SG69
Properties and observations:	-
Marine pollutant:	no
Segregation group:	none

Air transport (IATA)

UN/ID number:	UN 1950
Proper shipping name:	UN 1950, AEROSOLS, flammable
Class or division, Subsidary risk:	Class 2.1
Hazard label:	Flamm. gas
Excepted Quantity Code:	E0
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y203 - Max. Net Qty/Pkg. 30 kg G
Passenger and Cargo Aircraft:	Pack.Instr. 203 - Max. Net Qty/Pkg. 75 kg
Cargo Aircraft only:	Pack.Instr. 203 - Max. Net Qty/Pkg. 150 kg
Special provisions:	A145 A167 A802
Emergency Response Guide-Code (ERG):	10L

15. Regulatory information

National regulations - Canada

No data available

National regulations - U.S. Federal Regulations

Acetone:	TSCA Inventory: listed TSCA HPVC: not listed Clean Air Act: SOCMI Chemical: yes Other Environmental Laws: CERCLA: RQ 5000 lbs. RCRA Hazardous Wastes: Code U002 RCRA Groundwater Monitoring: Methods 8240 / PQL 100 NIOSH Recommendations: Occupational Health Guideline: 0004*
Isopropyl alcohol:	TSCA Inventory: listed TSCA HPVC: not listed Carcinogen Status: IARC Rating: Group 3 OSHA Carcinogen: not listed NTP Rating: not listed NIOSH Recommendations: Occupational Health Guideline: 0359
Propane:	TSCA Inventory: listed TSCA HPVC: not listed Clean Air Act: Accidental Release Prevention: Threshold 10000 lbs. / Basis for listing = f NIOSH Recommendations: Occupational Health Guideline: 0524
Butane:	TSCA Inventory: listed TSCA HPVC: not listed Clean Air Act: Accidental Release Prevention: Threshold 10000 lbs. / Basis for listing = f NIOSH Recommendations: Occupational Health Guideline: 0068*
Isobutane, pure:	TSCA Inventory: listed TSCA HPVC: not listed Clean Air Act: Accidental Release Prevention: Threshold 10000 lbs. / Basis for listing = f NIOSH Recommendations: Occupational Health Guideline: 0350*

National regulations - U.S. State Regulations

Acetone:	California Prop 65 List: None Delaware Air Quality Management List: DRQ: 5000 - RQ State: Federal Regulations Apply Idaho Air Pollutant List: Title 585: AAC: 89 - EL: 119 - OEL: 1780 Massachusetts Haz. Substance codes: 2,4,5,6 F8 F9 Minnesota Haz. Substance: Codes: AON - Ratings: 7.16 - Status: Title III New York List of Hazardous Substances: RQ-Air: 5000 - RQ-Land: 1 - Note: No Note Associated with this chemical. Pennsylvania Haz. Substance code: E Washington Air Contaminant: TWA: 750 ppm - 1800 mg - STEL: 1000 ppm - 2400 mg
Isopropyl alcohol:	Idaho Air Pollutant List: Title 585: AAC: 49 -- EL: 65.3 -- WEL: 980 -Title 586: - Massachusetts Haz. Substance codes: 2,4,5,6 F9 Minnesota Haz. Substance: Codes: ANO -- Ratings: 7.84 -- Status: Title III. TRI. New Jersey RTK Hazardous Substance: DOT: 1219 - Sub No.: 1076 - TPQ: - Pennsylvania Haz. Substance code: E Washington Air Contaminant: TWA: 400 ppm - 980 mg -- STEL: 500 ppm - 1225 mg
Propane:	California Proposition 65 code: - Delaware Air Quality Management List: DRQ: F 1000** - RQ State: State requirements differs from Federal Massachusetts Haz. Substance codes: 2,4,5,6 Minnesota Haz. Substance: Codes: AP - Ratings: - - Status: Title III New Jersey RTK Hazardous Substance: DOT: 1978 - Sub No.: 1594 - TPQ: - Pennsylvania Haz. Substance code: - Washington Air Contaminant: TWA: 1000 ppm - 1800 mg
Butane:	Delaware Air Quality Management List: DRQ: F 1000** - RQ State: State requirements differs from Federal Massachusetts Haz. Substance codes: 4,5,6 Minnesota Haz. Substance: Codes: A - Ratings: - - Status: Title III New Jersey RTK Hazardous Substance: DOT: 1011 - Sub No.: 0273 - TPQ: - Pennsylvania Haz. Substance code: - Washington Air Contaminant: TWA: 800 ppm - 1900 mg
Isobutane, pure:	California Proposition 65 code: - Delaware Air Quality Management List: DRQ: F 1000** - RQ State: State requirements differs from Federal Massachusetts Haz. Substance codes: 6 New Jersey RTK Hazardous Substance: DOT: 1969 - Sub No.: 1040 - TPQ: - Pennsylvania Haz. Substance code: -

16. Other information

Text for labeling: Contains 10 - 25 % Acetone, 10 - 25 % Isopropyl alcohol, 10 - 25 % Propane, 25 - 50 % Butane, 1 - 10 % Isobutane, pure. Safety data sheet available on request.

Hazard rating systems:

NFPA Hazard Rating:
Health: 1 (Slight)
Fire: 4 (Severe)
Reactivity: 0 (Minimal)

HMIS Version III Rating:
Health: 1 (Slight) - Chronic effects
Flammability: 4 (Severe)
Physical Hazard: 0 (Minimal)
Personal Protection: X = Consult your supervisor

HEALTH	*	1
FLAMMABILITY		4
PHYSICAL HAZARD		0
		X

Date of first version: 6/Apr/2017

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.