1. Identification

Material Identity
Product Name: Ruscoe Permanent Sealer 974 Traffic Loop Sealant - Gray

Product Number: 50581G
Generic ID: Nitrile Rubber Sealant

Company
The Ruscoe Company
485 Kenmore Blvd.
Akron, Ohio 44301
Telephone: 330-253-8148

Emergency Telephone: 800-424-9300
(Chemtrec – 24 hours/day)

Fax: 330-253-2933

2. Hazards identification

Classification of the substance or mixture

Flammable liquids	Category 2
Serious eye damage/ eye irritation	Category 2B
Acute toxicity; inhalation	Category 4
Specific target organ toxicity – single exposure narcotic effects	Category 3
Skin corrosion/irritation	Category 2
Carcingenicity: inhalation	Category 2
Aspiration hazard	Category 1

GHS classification scale (1=severe hazard; 4=slight hazard)

Label elements
GHS label elements
The mixture is classified and labeled according to the the Globally Harmonized System (GHS).
Hazard pictograms

Signal Word: Danger
Hazard statements

Continued on next page

H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H332 Harmful if inhaled
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness

Precautionary statements

Prevention

P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat/sparks/open flames/hot surfaces.- No smoking
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P240 Ground/bond container and receiving equipment.
P233 Keep container tightly closed.

Response

P370+P378 In case of fire; use water spray, carbon dioxide, dry chemical or alcohol foam for extinction.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical attention.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.

Storage

P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.

Disposal

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

Continued on next page

3. Composition/information on ingredients

Ingredients	CAS Number	% (by weight)
Methyl isobutyl ketone	108-10-1	35-40
Synthetic rubber	9002-18-3	22-26
Phenolic Resin	N/A	14-18
Magnesium silicate	14807-96-6	14-18
Titanium dioxide	13463-67-7	4-6
Mineral spirits	64742-47-8	2-4
Contains C9-C15 Cycloalkanes	Mixture	0.6-2
C9-C15 Alkanes	Mixture	0.1-0.6
Carbon black	1333-86-4	0.0-0.2
Formaldehyde	50-00-0	0.001-0.006

VOC Content 425 g/l

4. First aid measures

Description of first aid measures

Inhalation: Remove to fresh air and keep at rest in apposition comfortable for breathing. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs give artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position Maintain an open airway. Loosen tight clothing such as a collar, tie belt or waistband.

Skin contact: Remove contaminated clothing as needed. Wash with plenty of soap and water. Immediately flush plenty of water for at least 15 minutes. Wash contaminated clothing before reuse..Seek medical attention if ill effect or irritation develops.

Eye contact: Immediately flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If easy to do, remove contact lenses. If irritation persists seek medical attention.

Ingestion: Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

May irritate and cause redness and pain. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient**.**

Continued on next page

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing agents: Water spray, carbon dioxide, dry chemical, alcohol foamr.

For safety reasons unsuitable extinguishing agents: Solid **w**ater stream – may spread fire.

Special hazards arising from the substance or mixture: Vapors may cause a flash fire or ignite explosively. Vapors may travel a considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Runoff to sewer may create fire or explosion hazard. Water contaminated with this material be contained and prevented from being discharged to any waterway, sewer or drain. Forms explosive peroxides which may be shock sensitive.

Advice for firefighters

Hazardous thermal decomposition products: Carbon dioxide, carbon monoxide.

Protective equipment: Self contained breathing apparatus and full protective clothing must be worn in case of fire.

---

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away. Immediately evacuate personnel to safe areas. Keep people away and upwind of spill/leak. Remove all sources of ignition.

Environmental precautions:

Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/surface or ground water.

Methods and material for containment or cleaning up:

Absorb with liquid-binding material (ie. Sand, diatomite, dry earth, acid binders, or other non-combustible material).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents.

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

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.

Information about protection against explosions and fire:

Keep ignition sources away – Do not smoke.
Protect from heat.
Protect against electrostatic charges.

Conditions for safe storage, including any incompatibilities

Continued on next page

Storage
Requirements to be met by storerooms and receptacles: Store in a cool location.
Information about storage in one common storage facility: Not required.
Further information about storage conditions:
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
Specific end use(s) No further relevant information available.

---

8. Exposure controls/personal protection
Additional information about design of technical systems: No further data; see section 7.
Control parameters
Components with limit values that require monitoring at the workplace:
108-10-1 4-methylpentan-2-one; methyl isobutyl ketone
TWA 20 ppm – ACGIH - TLV
STEL 75 ppm – ACGIH - TLV
PEL 100 ppm – OSHA – Table Z-1
Mixture C9-C15 Cycloalkanes
TWA 400 ppm – ACGIH – 8 hours Form: Methylcyclohexane
64742-47-8 mineral spirits
TWA 212 ppm – ACGIH – 8 hours
Notes: The TLV for the hydrocarbon solvent is based on the procedure described in Appendix H ("Reciprocal Calculations Method for Certain Refined Hydrocarbon Solvent Vapors") of the ACGIH TLVs and BEIs guidelines. The CGV mixture (ACGIH TLV) is based on Column B (McKee et al.., 2005) of Table I ("Group Guidance Values") of Appendix H.
50-00-0 Formaldhyde
STEL 2 ppm – OSHA
TWA 0.75 ppm - OSHA

Ingredients with biological limit values:
108-10-1 4-methylpentan-2-one; methyl isobutyl ketone
Sample time: end of shift Exposure limit value 1 mg/l (Urine) ACGIH BEI (01 2010) .
Additional Information: Not available..
Exposure controls
Engineering measures: Good general ventilation (typically 10 air changes/hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.
Personal protective equipment:
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.

Continued on next page

Avoid contact with the eyes.
Avoid contact with the eyes and skin.

Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Select the glove material based on penetration times, rates of diffusion and 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.

Penetration time of glove material
The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

Eye protection: Wear safety glasses with side shields or tightly sealed goggles. Wear a respirator if needed.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) to an an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instated to assure compliance with OSHA Standard 63 FR 1152

---

9. Physical and chemical properties

General information

Appearance:	
Form:	Liquid
Color:	Gray colored
Odor:	Ketone
Odor threshold:	No data available
pH-value	7
Change in condition	
Melting point/Melting range:	-85 to -58 ^{o}C (-121 to -72 ^{o}F)
Boiling point/Boiling range:	117 - 194^{o}C (254 to 381^{o}F)
Flash point:	16 to 42^{o}C (61 - 86^{o}F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	236^{o}C (457 ^{o}F)
Decomposition temperature:	Not determined
Auto igniting:	Not determined
Danger of explosion:	No data available
Explosion Limits:	
Lower:	0.6 Vol %
Upper:	8 Vol %
Vapor Pressure @ 20 ^{o}C (68 ^{o}F)	19 hPa (14.8 mm Hg)

Continued on next page

Density @ 20 °C (68 °F)	1.05 g/cm^3 (8.80 lbs/gal)
Relative density	Not determined
Vapor density	Not determined
Evaporation rate	Not determined
Solubility in/ Miscibility with water:	Not miscible or difficult to mix
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	
Dynamic:	Not determined
Kinematic:	Not determined
Organic solvents:	38-43%
VOC content	425 g/l
Other information	No further relevant information available.

10. Stability and reactivity

Reactivity Map form peroxides of unknown stability.
Chemical stability Stable
Thermal decomposition/conditions to be avoided: No decomposition under normal use conditions.
Possibility of hazardous reactions Forms peroxides of unknown stability.
Conditions to avoid Heat, sparks and flames. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition .
Incompatible materials: Acids, alkalies, nitrates, amines, ammonia, reducing agents and strong oxidizing agents.
Hazardous decomposition products: Carbon dioxide, carbon monoxide.

11. Toxicological information

Information on toxicological effects
Acute toxicity:
LD/LC50 values that are relevant for classification:
108-10-1 4-methylpentan-2-one; methyl isobutyl ketone
Oral LD50 2080 mg/kg (rat)
Mixture C9-C15 alkanes
In animal studies utilizing mineral spirits containing up to 22% aromatics indicated that the acute central nervous system effects are reversible. Based on existing animal studies, the potential for persistent effects are unclear.
Skin:
108-10-1 4-methylpentan-2-one; methyl isobutyl ketone
Dermal LD-50: >10 ml/kg (Rabbit)
Mixture C9-C15 alkanes
Primary dermal studies (four hour exposure) in rabbits utilizing mineral spirits containing less than 2% aromatics resulted in slight to moderate skin irritation. In humans, mineral spirits have produced slight to moderate skin irritation particularly with evaporation from skin is prevented.
Eyes:

Continued on next page

108-10-1 4-methylpentan-2-one; methyl isobutyl ketone
(Rabbit) slight to moderate.
Mixture C9-C15 alkanes
No additional information.
Inhalation:
108-10-1 4-methylpentan-2-one; methyl isobutyl ketone
LC%) (Rat, 4 h): 2000-4000 ppm
Mixture C9-C15 alkanes
No additional information.
Sensitization:
No data indicating sensitization effects.
Additional toxicological information:

Carcinogenic categories
ACGIH Carcinogens
.50-00-0 Formaldehyde A2 Suspected human carcinogen.
IARC (International Agency for Research on Cancer)
108-10-1 4-methylpentan-2-one 2B Possibly carcinogenic to humans.
50-00-0 Formaldehyde 1 Carcinogenic to humans.
NTP (National Toxicology Program)
50-00-0 Formaldehyde Known to be a human carcinogen.
Mixture C9-C15 Alkanes Two-year carcinogenicity studies in rats and mice with Stoddard Solvent IIC (less than 2% aromatics). The studies indicated that there was some evidence of carcinogenic activity in male rats (adrenal medulla neoplasms and renal tubule adenoma) but no evidence of carcinogenicity in female rats. Further, there was equivocal evidence of carcinogenic activity in female mice (hepatocellular adenoma) but no evidence of carcinogenic activity in male mice. A low carcinogenic potential is suggested by a lack of genotoxic potential identified in in vivo and in vitro genetic tests (with and without metabolic activation).
US OSHA Specifically Regulated Substances: Potential cancer hazard
50-00-0 Formaldehyde Potential cancer hazard.

12. Ecological information

Toxicity
Aquatic toxicity: No further relevant information available.
108-10-1 4-methylpentan-2-one; methyl isobutyl ketone
LC50 (goldfish, 24h): 460 mg/l
LC50 (golden orfe, 48 h): 675-750 mg/l
LC50 (Water flea, 24h): 4300 mg/l
LC50 (Brown shrimp, 24 h): 1250 mg/l
Persistence and degradability No further relevant information available.
Biological oxygen demand
108-10-1 4-methylpentan-2-one; methyl isobutyl ketone:
BOD-5 1940-2060 mg/g

Continued on next page

Chemical oxygen demand
108-10-1 4-methylpentan-2-one; methyl isobutyl ketone
2160-2460 mg/g
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.
Additional ecological information:
General notes:
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available.

13. Disposal considerations

Waste treatment methods
Recommendation:
Contaminated product, soil, water, container residues and spill cleanup materials may be hazardous wastes. Comply with applicable federal, state, and local regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind, or weld on or near this container.

Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

14. Transport information

UN-Number	
DOT, ADR, IMDG, IATA	UN1133
UN proper shipping name	
DOT	Adhesives, containing a flammable liquid.
ADR	Not determined
IMDG, IATA	Not determined
Transport hazard class(es)	
DOT	

Class	3 Flammable liquids.
Label	3
ADR	Not determined
Class	Not determined
IMDG< IATA	Not determined

Continued on next page

Class	Not determined
Label	Not determined
Packing group	
DOT, ADR, IMDG, IATA	II
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Warning: Flammable liquids
Danger code (Kemler)	33
EMS Number:	Not applicable.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

Transport/Additional information:
DOT
Remarks: ERG Guide Number: 128
UN "Model Regulation": UN1133, Adhesives, 3, II

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
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.
WHMIS (Canada) Status: Controlled
WHMIS (Canada) Hazard Classification: Class B, Div 2
Sara
Section 355 (extremely hazardous substances):
Mixture substances are not listed.
Section 311 Hazard Classification
Immediate (acute) health hazard
Fire hazard
Section 313 (Specific toxic chemical listings):
Methyl isobutyl ketone.
TSCA (Toxic Substance Control Act):
None known
Proposition 65
Chemicals known to cause cancer:

Ethylbenzene (CAS100-41-4)	Listed
Formaldehyde (CAS 50-00-0)	Listed.

Chemicals known to cause reproductive toxicity for females:
Mixture substances are not listed or below amounts requiring listing.
Chemicals known to cause reproductive harm to males:
Mixture substances are not listed.

Continued on next page

Chemicals known to cause developmental toxicity:
Mixture substances are not listed or below amounts requiring listing..
TLV (Threshold Limit Value established by ACGIH)
Not determined.
NIOSH-Ca (National Institute for Occupational Safety and Health)
Mixture substances are not listed.
OSHA-Ca (Occupational Safety & Health Administration)
Mixture substances are not listed**.**
GHS label elements
The mixture is classified and labeled according to the Globally Harmonized System (GHS)
Chemical safety assessment: A chemical Safety Assessment has not been carried out.

16. Other Information

HMIS Hazard Ratings:	Health - 2*	Flammability – 3	Reactivity – 1
NFPA Hazard Ratings:	Health – 1	Flammability - 3	Reactivity – 1

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of the need that the information is current, applicable, and suitable to their circumstances.

Date of preparation/last revision 4/30/2015 -
Abbreviations and acronyms:
ADR: Accord European sur le transport des marchandises par Route (European Agreement concerning the international Carriage of Dangerous Goods
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Government Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal Dose, 50 percent

End of SDS