Safety Data Sheet
acc. to OSHA HCS

Printing date 05/08/2015 Reviewed on 05/08/2015

1: Identification

· **1.1 Product identifier**

· **Trade name: D-106 Developer Spray Can**

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Application of the substance / the mixture**
NDT Inspection developer "form d & e" per AMS-2644/ASTM E-1417

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**
Sherwin Incorporated
5530 Borwick Ave
South Gate, CA 90280
Phone: (562) 861-6324
Fax: (562) 923-8370
https://www.sherwininc.com/

· **Information department:** Product safety department

· **1.4 Emergency telephone number:**
Chemtrec +1-800-424-9300 in U.S.A.; outside U.S.A. 001-703-527-3887
Chemtrec contract number 20103

2: Hazard(s) identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**
Flam. Liq. 2 H225 Highly flammable liquid and vapor.
Eye Irrit. 2A H319 Causes serious eye irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.
Flammable Aerosol 1 H220
Gases Under Pressure – Compressed Gas

· **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**

GHS02 GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**
Acetone
Propane
Isobutane

· **Hazard statements**
H220 Flammable aerosol. Contains gas under pressure; may explode if heated.
H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

· **Precautionary statements**

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P233	Keep container tightly closed.
P240+P241	Use explosion-proof electrical/ventilating/lighting/equipment. Ground container.
P261+P271	Avoid breathing product. Use in a well ventilated area.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

(Contd. on page 2)

Safety Data Sheet
acc. to OSHA HCS

Printing date 05/08/2015 Reviewed on 05/08/2015

Trade name: D-106 Developer Spray Can

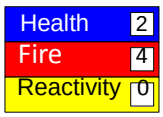
(Contd. of page 1)

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P233+P405 Keep container tightly closed. Store locked up.
P403+P410 Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 50 ºC/122 ºF
P501 Dispose of contents/container in accordance with local/regional/national/international

· **Classification system:**
· **NFPA ratings (scale 0 - 4)**

Health = 2
Fire = 4
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health =2
Fire = 4
Reactivity = 0

· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3: Composition/information on ingredients

· **3.2 Chemical characterization: Mixtures**
· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 67-64-1	Acetone	50-60%
CAS: 67-63-0 EINECS: 200-661-7	propan-2-ol	1-10%
CAS 74-98-6	Propane	1-10%
CAS 75-28-5	Isobutane	1-10%
CAS: 14807-96-6	talc , not containing asbestiform fibers	1-10%

.

4: First-aid measures

· **4.1 Description of first aid measures**
· **After inhalation:**
Supply fresh air. If required, provide artificial respiration.. Consult doctor if you feel unwell.
In case of unconsciousness place patient stably in side position for transportation and call doctor.
· **After skin contact:**
Immediately wash with water and soap and rinse thoroughly. Take off contaminated clothing. If skin irritation continues, consult a doctor.
· **After eye contact:**
Immediately rinse opened eye for 15l minutes under running water. Remove contact lens. If symptoms persist, consult a doctor.
· **After swallowing:**
Rinse mouth. Do not induce vomiting. Keep respiratory tract clear. If symptoms persist, immediately call for medical help. A person vomiting while lying on their back should be turned onto their side.

(Contd. on page 3)

Trade name: D-106 Developer SPRAY CAN

(Contd. of page 2)

· **4.2 Most important symptoms and effects, both acute and delayed**
May cause drowsiness, dizziness, headaches, severe eye irritation.
· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5: Fire-fighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
CO2, sand, extinguishing powder. Do not use water.
Foam
ABC powder
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **5.2 Special hazards arising from the substance or mixture** Spray cans are under pressure. Carbon monoxide and carbon dioxide
· **5.3 Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device, if necessary. Wear fully protective suit.

6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Spray cans are under pressure. Wear protective equipment. Keep unprotected persons away. Eliminate ignition sources. Ensure adequate ventilation. Avoid breathing mist or vapors.
· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Collect liquid in an appropriate container or absorb with an inert material such as vermiculite, dry sand, or earth; DO NOT use combustible materials.
Place in a chemical waste container.
· **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.

7: Handling and storage

· **7.1 Precautions for safe handling** Prevent breathing of mists or vapors. Practice good hygiene..
· **Information about protection against explosions and fires:**
Keep away from sources of ignition. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid contact with skin and eyes. Avoid breathing vapor or mist. Do not swallow. Use only outdoors or in a well-ventilated area. When using do not eat, drink or smoke. (See section 8)
Containers may be hazardous when empty since residue may be present·
· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
No smoking.
Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 50 ºC/122 ºF
· **Requirements to be met by storerooms and receptacles:** Store in a cool location.

(Contd. on page 4)

Safety Data Sheet
acc. to OSHA HCS

Printing date 05/08/2015 Reviewed on 05/08/2015

Trade name: D-106 Developer SPRAY CAN

(Contd. of page 3)

· **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.
· **7.3 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 item 7.

· **8.1 Control parameters**

· **Components with limit values that require monitoring at the workplace:**

67-64-1 acetone	AICGH TWA 500 ppm AICGH STEL 750 ppm OSHA Z-1 1000 ppm
67-63-0 propan-2-ol	OSHA PEL: 980 mg/m^3, 400 ppm ACGIH STEL: 400 ppm TWA 200 ppm NIOSH STEL: 1225 mg/m^3, 500 ppm TWA: 980 mg/m^3, 400 ppm
74-98-6 Propane, 75-28-5 isobutane	OSHA PEL TWA 1000 ppm

· **Additional information:** The lists that were valid during the creation were used as basis.

· **8.2 Exposure controls**
· **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.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
· **Breathing equipment:**

Ventilation System: A system of local or general exhaust is recommended to keep employee exposure below the airborne exposure limits. If exposure limit is exceeded use organic vapor respirator (type A), or self contained breathing apparatus.
.

· **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 cannot 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.

(Contd. on page 5)

(Contd. of page 4)

Eye protection:

Safety glasses

Tightly sealed goggles

· **Body protection:** Use protective suit. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Spray can under pressure. White liquid, gas propellant
Color:	White
· **Odor:**	Charactertistic
· **Odour threshold:**	Not determined.
· **pH-value:**	Not applicable.
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Acetone portion: 56 °C (133 °F)
· **Flash point, solvent:**	Acetone portion portion: -20°C (-4 °F)
· **Ignition temperature:**	Not determined
· **Decomposition temperature:**	Not determined.
· **Auto igniting:**	Product is not self igniting.
· **Danger of explosion:**	Can under pressure with a flammable gas.
· **Explosion limits:**	Acetone portion:
Lower:	2.0 Vol %
Upper:	13.0 Vol % Propellant: 9.5% (vol.) Gas in air
· **Vapor pressure at 20 °C (68 °F):**	No data available
· **Density at 20 °C (68 °F):**	Liquid portion: 0.86 g/cm³ (7.2 lbs/gal)
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Powder not soluble
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.

(Contd. on page 6)

Safety Data Sheet
acc. to OSHA HCS

Printing date 05/08/2015 Reviewed on 05/08/2015

Trade name: D-106 Developer SPRAY CAN

(Contd. of page 5)

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

10: Stability and reactivity

· **10.1 Reactivity**
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions** No dangerous reactions known.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:**
Avoid contact with acetaldehyde, acids, chlorine, ethylene oxide, isocyanate and strong oxidizing agents
· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity:** Information on hazardous ingredients

· **LD/LC50 values that are relevant for classification:**		
67-64-1 acetone		
Acute oral toxicity		>5,800 mg/kg (rabbit)
Acute inhalation toxicity:	LC50/4h	76.0 mg/kg (rat)
Acute dermal toxicity:	LD50	7,426 mg/kg
67-63-0 propan-2-ol		
Acute oral toxicity	LD50	5.03 g/kg (rabbit)
Acute inhalation toxicity:	LC50/4h	>20 mg/kg (rat)
Acute dermal toxicity:	LD50	12800 mg/kg (rabbit)

· **Primary irritant effect:**
· **on the skin:** Mild
· **on the eye:** Irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**	
	No component of this product is identified as probable, possible or confirmed human carcinogen
· **NTP (National Toxicology Program)**	
None of the ingredients is listed.	
· **OSHA-Ca (Occupational Safety & Health Administration)**	
None of the ingredients is listed.	

(Contd. on page 7)

Trade name: D-106 Developer SPRAY CAN

(Contd. of page 6)

12: Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:**
Information on hazardous ingredients

	67-64-1 acetone	67-63-0 propan-2-ol
Toxicity, fish	LC50 (Oncorhynchus mykiss): 6,100 mg/l	LC50/96h : >100 mg/l
Toxicity	EC50 (Daphnia magna): 7,630 mg/l	EC50/48hr (Daphnia magna): >100 mg/l

· **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.
· **Additional ecological information:**
· **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Waste/ unused products
Collect all waste in suitable and labeled containers and dispose according to local legislation.

· **Uncleaned packagings:**
· **Recommendation:**
Depressurize can
Waste / used products
Waste products and empty packages dispose of in accordance with local regulations.
Empty containers may contain flammable residue and vapors.

14: Transport information

· **14.1 UN-Number**
DOT Consumer commodity ORM-D
ADR, IMDG, IATA UN1950

14.2 UN proper shipping name
· **DOT** Consumer commodity ORM-D
· **ADR· IMDG, IATA** Aerosols, flammable

(Contd. on page 8)

Safety Data Sheet
acc. to OSHA HCS

Printing date 05/08/2015 Reviewed on 05/08/2015

Trade name: D-106 Developer SPRAY CAN

(Contd. of page 7)

· **14.3 Transport hazard class(es)**

· **DOT**

.

Class	Not applicable
· **Label**	ORM-D

· **ADR, IMDG, IATA**

· **Class**	Aerosols, flammable, 2.1
· **Label**	Flammable gas, 2.1

· **14.4 Packing group**

· **DOT**	Not applicable
ADR, IMDG, IATA	None

· **14.5 Environmental hazards:**

· **Marine pollutant:**	Not applicable

· **14.6 Special precautions for user** Warning: Flammable gas

.

.

· **Transport/Additional information:**

· **DOT**

· **Quantity limitations**

On passenger aircraft/rail: 75 kg

On cargo aircraft only: 150 kg

.

.

(Contd. on page 9)

Safety Data Sheet
acc. to OSHA HCS

Printing date 05/08/2015 Reviewed on 05/08/2015

Trade name: D-106 Developer SPRAY CAN

(Contd. of page 8

15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **Sara**

· **Section 355 (extremely hazardous substances):**	
None of the ingredient is listed.	
· **Section 313 (Specific toxic chemical listings):**	
67-63-0	propan-2-ol
Section 311/312	
Fire hazard Acute health hazard	
· **TSCA (Toxic Substances Control Act):**	
	All components listed

· **Proposition 65**

· **Chemicals known to cause cancer:**
None of the ingredients is listed.
· **Chemicals known to cause reproductive toxicity for females or males:**
None of the ingredients is listed.

· **Carcingenity categories**

· **EPA (Environmental Protection Agency)**
None of the ingredients is listed.
· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

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

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.

· **Contact:** Sherwin Incorporated
· **Date of preparation / last revision** 05/08/2015
· **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 Harmonised System of Classification and Labelling 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)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3