

SAFETY DATA SHEET

in accordance with 1907/2006/EC (REACH, as amended by 830/2015/EU) and 29 CFR 1910.1200

Revision date: 21 December 2015

Initial date of issue: 17 August 2007

SDS No. 110A-20

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

1.1. Product identifier

421 Clear Protective Coating (Aerosol)

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

General duty, impermeable, flexible plastic coating. Protects against air, water, oils, chemicals, corrosion.

1.3. Details of the supplier of the safety data sheet

Company:

A.W. CHESTERTON COMPANY
860 Salem Street
Groveland, MA 01834-1507, USA
Tel. +1 978-469-6446 Fax: +1 978-469-6785
(Mon. - Fri. 8:30 - 5:00 PM EST)
SDS requests: www.chesterton.com
E-mail (SDS questions): ProductMSDSs@chesterton.com
E-mail: customer.service@chesterton.com
EU: Chesterton International GmbH, Am Lenzenfleck 23,
D85737 Ismaning, Germany – Tel. +49-89-996-5460

Supplier:

1.4. Emergency telephone number

24 hours per day, 7 days per week
Call Infotrac: 1-800-535-5053
Outside N. America: +1 352-323-3500 (collect)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP] / 29 CFR 1910.1200 / WHMIS 2015 / GHS

Aerosol 1, H222, H229
STOT RE 2, H373
Repr. 2, H361d
Eye Irrit. 2, H319
Skin Irrit. 2, H315
STOT SE 3, H336
Aquatic Chronic 3, H412

2.1.2. Classification according to WHMIS 1988

B5: Flammable aerosols; D2A: Very toxic materials causing other effects; D2B: Toxic materials causing other effects

2.1.3. Australian statement of hazardous nature

Hazardous according to criteria of Safe Work Australia.

2.1.4. Additional information

For full text of H-statements: see SECTIONS 2.2 and 16.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP] / 29 CFR 1910.1200 / WHMIS 2015 / GHS

Hazard pictograms:



Signal word:

Danger

Hazard statements:	H222	Extremely flammable aerosol.
	H229	Pressurized container: May burst if heated.
	H373	May cause damage to the central nervous system through prolonged or repeated exposure by inhalation.
	H361d	Suspected of damaging the unborn child.
	H319	Causes serious eye irritation.
	H315	Causes skin irritation.
	H336	May cause drowsiness or dizziness.
	H412	Harmful to aquatic life with long lasting effects.
	Precautionary statements:	P201
P210		Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211		Do not spray on an open flame or other ignition source.
P251		Do not pierce or burn, even after use.
P260		Do not breathe vapours/spray.
P280		Wear protective gloves/clothing and eye/face protection.
P308/313		IF exposed or concerned: Get medical advice/attention.
P410/412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.	
Supplemental information:	None	

2.3. Other hazards

None known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixtures**

Hazardous Ingredients ¹	% Wt.	CAS No./ EC No.	REACH Reg. No.	CLP/GHS Classification
Toluene	25-30	108-88-3 203-625-9	NA	Flam. Liq. 2, H225 Repr. 2, H361d Asp. Tox. 1, H304 STOT RE 2, H373L Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 3, H412
Methyl Ethyl Ketone	15-25	78-93-3 201-159-0	NA	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Isobutane*	15-25	75-28-5 200-857-2	NA	Simple Asphy. (US/Can.) Flam. Gas 1, H220 Liquefied Gas, H280
Acetone	15-25	67-64-1 200-662-2	NA	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
2-Methoxy-1-Methylethyl Acetate	1-5	108-65-6 203-603-9	NA	Flam. Liq. 3, H226
Propane	1-5	74-98-6 200-827-9	NA	Simple Asphy. (US/Can.) Flam. Gas 1, H220 Liquefied Gas, H280

For full text of H-statements: see SECTION 16.

*Contains less than 0.1 % w/w 1,3-Butadiene.

¹ Classified according to: * 29 CFR 1910.1200, 1915, 1916, 1917, Mass. Right-to-Know Law (ch. 40, M.G.L..O. 111F), California Proposition 65
* 1272/2008/EC, REACH
* WHMIS 2015
* Safe Work Australia [NOHSC: 1008 (2004)]

SECTION 4: FIRST AID MEASURES**4.1. Description of first aid measures**

Inhalation: Remove to fresh air. If not breathing, administer artificial respiration. Contact physician.
Skin contact: Wash skin with soap and water. Remove contaminated clothing. Contact physician.
Eye contact: Flush eyes for at least 15 minutes with large amounts of water. Contact physician.
Ingestion: Do not induce vomiting. Contact physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Causes skin irritation. Direct eye contact will cause eye irritation. Excessive inhalation of vapors will cause dizziness, headache, nausea, eye and respiratory tract irritation, irregular heartbeats (arrhythmia) and in extreme cases, loss of consciousness. Animal studies have reported hearing loss and adverse fetal developmental effects with excessive exposure to toluene.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptoms. Do not administer adrenaline (epinephrine).

SECTION 5: FIRE-FIGHTING MEASURES**5.1. Extinguishing media**

Suitable extinguishing media: Carbon Dioxide, dry chemical, foam or water fog

Unsuitable extinguishing media: Water jets

5.2. Special hazards arising from the substance or mixture

Pressurized containers, when heated, are a potential explosive hazard.

5.3. Advice for firefighters

Cool exposed containers with water. Recommend Firefighters wear self-contained breathing apparatus.

Flammability Classification: NFPA Storage Level III; 16 CFR 1500.3 Extremely flammable aerosol

HAZCHEM Emergency Action Code: 2 **Y**

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Provide adequate ventilation. Utilize exposure controls and personal protection as specified in Section 8.

6.2. Environmental Precautions

Keep out of sewers, streams and waterways.

6.3. Methods and material for containment and cleaning up

Contain spill to a small area. Keep away from sources of ignition - No smoking. If removal of ignition sources is not possible, then flush material away with water. Pick up with absorbent material (sand, sawdust, clay, etc.) and place in a suitable container for disposal.

6.4. Reference to other sections

Refer to section 13 for disposal advice.

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

Shake well before using. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No Smoking. Vapors are heavier than air and will collect in low areas. Vapor accumulations could flash and/or explode if ignited. Utilize exposure controls and personal protection as specified in Section 8.

7.2. Conditions for safe storage, including any incompatibilities

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C (120°F). Do not pierce or burn, even after use.

7.3. Specific end use(s)

No special precautions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters****Occupational exposure limit values**

Ingredients	OSHA PEL ¹		ACGIH TLV ²		UK WEL ³		AUSTRALIA ES ⁴	
	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Toluene	200 (Ceiling)	–	20	–	50 STEL: 100	191 STEL: 384	50 STEL: 150	191 STEL: 574
Methyl Ethyl Ketone	200 STEL: 300	–	200 300	590 STEL: 885	200 300	600 STEL: 899	150 STEL: 300	445 STEL: 890
Isobutane	–	–	STEL: 1000	–	–	–	–	–
Acetone	1000	2400	250 STEL: 500	–	500 STEL: 1500	1210 STEL: 3620	500 STEL: 1000	1185 STEL: 2375
2-Methoxy-1-Methylethyl Acetate	–	–	–	–	50 STEL: 100	274 STEL: 548	50 STEL: 100	274 STEL: 548
Propane	1000	1800	–	–	–	–	–	–

¹ United States Occupational Health & Safety Administration permissible exposure limits.

² American Conference of Governmental Industrial Hygienists threshold limit values.

³ EH40 Workplace exposure limits, Health & Safety Executive

⁴ Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003].

8.2. Exposure controls**8.2.1. Engineering measures**

Use only in well-ventilated areas. Provide sufficient explosion-proof ventilation to keep the vapor concentrations below the exposure limits.

8.2.2. Individual protection measures

Respiratory protection: Not normally needed. In case of insufficient ventilation, utilize an approved organic vapor respirator (e.g., EN filter type A).

Protective gloves: Chemical resistant gloves (e.g. Viton*, Polyvinyl Alcohol). *DuPont's registered trademark.

Toluene:

Contact type	Glove material	Layer thickness	Breakthrough time*
Full	Viton*	0.7 mm	> 480 min.
Splash	Nitrile rubber	0.4 mm	> 10 min.

*Determined according to EN374 standard.

Eye and face protection: Safety goggles.

Other: Impervious clothing as necessary to prevent skin contact.

8.2.3. Environmental exposure controls

Refer to sections 6 and 12.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Physical state	low viscosity liquid	Odour	solvent odor
Colour	clear	Odour threshold	not determined
Initial boiling point	56°C (133°F)	Vapour pressure @ 20°C	not determined
Melting point	not determined	% Aromatics by weight	not determined
% Volatile (by volume)	95%	pH	not applicable
Flash point	-4°C (25°F)	Relative density	0.75 kg/l
Method	Closed Cup, product only	Weight per volume	6.25 lbs/gal.
Viscosity	not determined	Coefficient (water/oil)	< 1
Autoignition temperature	not determined	Vapour density (air=1)	> 1
Decomposition temperature	no data available	Rate of evaporation (ether=1)	< 1
Upper/lower flammability or explosive limits	LEL 1.2; UEL 9.9	Solubility in water	insoluble
Flammability (solid, gas)	not applicable	Oxidising properties	not determined
Explosive properties	not determined		

9.2. Other information

None

SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

Refer to sections 10.3 and 10.5.

10.2. Chemical stability

Stable

10.3. Possibility of hazardous reactions

No dangerous reactions known under conditions of normal use.

10.4. Conditions to avoid

Open flames and red hot surfaces.

10.5. Incompatible materials

Some strong acids/bases and strong oxidizers like liquid Chlorine and concentrated Oxygen.

10.6. Hazardous decomposition products

Carbon Monoxide, Carbon Dioxide and other toxic fumes.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

Primary route of exposure under normal use: Inhalation, skin and eye contact. Personnel with pre-existing skin disorders are generally aggravated by exposure.

Acute toxicity -**Oral:**

Substance	Test	Result
Toluene	LD50, rat	636 mg/kg
Methyl Ethyl Ketone	LD50, rat	> 2600 mg/kg
Acetone	LD50, rat	5800 mg/kg
2-Methoxy-1-Methylethyl Acetate	LD50, rat	8532 mg/kg

Dermal:

Substance	Test	Result
Toluene	LD50, rabbit	12124 mg/kg
Methyl Ethyl Ketone	LD50, rabbit	> 8000 mg/kg
Acetone	LD50, rabbit	> 7426 mg/kg
2-Methoxy-1-Methylethyl Acetate	LD50, rabbit	> 5000 mg/kg

Inhalation: Excessive inhalation of vapors will cause dizziness, headache, nausea, eye and respiratory tract irritation, irregular heartbeats (arrhythmia) and in extreme cases, loss of consciousness.

Substance	Test	Result
Isobutane	LC50, mouse, 1 h	52 mg/l
Propane	LC50, rat, 4 h	658 mg/l
Toluene	LC50, rat	49 mg/l/4 hours
Methyl Ethyl Ketone	LC50, rat	20 mg/l/4 hours
Acetone	LC50, rat	> 20 mg/l/4 hours
2-Methoxy-1-Methylethyl Acetate	LC50, rat	23.8 mg/l/6 h

Skin corrosion/irritation: Causes skin irritation.

Substance	Test	Result
Acetone	Skin irritation, rabbit	Moderate irritation
Toluene	Skin irritation, rabbit	Mild irritation
Methyl Ethyl Ketone	Skin irritation, rabbit	Slightly irritating

Serious eye damage/irritation: Direct eye contact will cause eye irritation.

Substance	Test	Result
Acetone	Eye irritation, rat, rabbit	Irritating
Toluene	Eye irritation, rabbit	Mild irritation
Methyl Ethyl Ketone	Eye irritation, rabbit	Irritating

Respiratory or skin sensitisation: Not expected to cause skin sensitization.

Germ cell mutagenicity: Methyl Ethyl Ketone, Acetone: based on available data, the classification criteria are not met. Toluene: not expected to be a germ cell mutagen.

Carcinogenicity: As per 29 CFR 1910.1200 (Hazard Communication), this product contains no carcinogens as listed by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA) or Regulation (EC) No 1272/2008.

Reproductive toxicity: Animal studies have reported adverse fetal developmental effects with excessive exposure to toluene.

STOT-single exposure: May cause drowsiness or dizziness.

STOT-repeated exposure: Animal studies have reported hearing loss with excessive exposure to toluene. Repeated excessive exposure to 2-Methoxy-1-Methylethyl Acetate may cause respiratory irritation, liver and kidney effects, and prolonged contact with large amounts can cause drowsiness. This is unlikely as 2-Methoxy-1-Methylethyl Acetate is present in a 1-5% concentration.

Aspiration hazard: Not classified as an aspiration toxicant (aerosol).

Other information: WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm (Toluene).

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. The information given below is based on a knowledge of the components and the ecotoxicology of similar substances.

12.1. Toxicity

Toluene: NOEC, Daphnia magna, 21 days = 1 mg/l; NOEC, Ceriodaphnia dubia, 7 days = 0.74 mg/l; 96 h LC50 (fish) = 5.5 mg/l, toxic to aquatic organisms on an acute basis.

12.2. Persistence and degradability

Methyl Ethyl Ketone, 2-Methoxy-1-Methylethyl Acetate, Acetone, Toluene: readily biodegradable. Hazardous ingredients: will degrade in air. Toluene: Ready biodegradability (water), 20 days = 86%.

12.3. Bioaccumulative potential

Hazardous ingredients: low potential for bioaccumulation. Toluene: Octanol/water partition coefficient (log Kow) = 2.73; BCF = 8.3.

12.4. Mobility in soil

Liquid. Insoluble in water. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9). Methyl Ethyl Ketone, 2-Methoxy-1-Methylethyl Acetate, Acetone: expected to have very high mobility in soils. Toluene: expected to have moderate mobility in soil.

12.5. Results of PBT and vPvB assessment

Not available

12.6. Other adverse effects

None known

SECTION 13: DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Incinerate absorbed material with a properly licensed facility. Full or partially full containers may be incinerated or the contents may be recovered by an appropriate facility. Check local, state and national/federal regulations and comply with the most stringent requirement. This product is classified as a hazardous waste according to 2008/98/EC.

SECTION 14: TRANSPORT INFORMATION**14.1. UN number**

ADR/RID/ADN/IMDG/ICAO: UN1950
TDG: UN1950
US DOT: UN1950

14.2. UN proper shipping name

ICAO: Aerosols, Flammable
IMDG: Aerosols
ADR/RID/ADN: Aerosols, *flammable*
TDG: Aerosols, *flammable*
US DOT: Aerosols, *flammable*

14.3. Transport hazard class(es)

ADR/RID/ADN/IMDG/ICAO: 2.1
TDG: 2.1
US DOT: 2.1

14.4. Packing group

ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE
TDG: NOT APPLICABLE
US DOT: NOT APPLICABLE

14.5. Environmental hazards

NO ENVIRONMENTAL HAZARDS

14.6. Special precautions for user

NO SPECIAL PRECAUTIONS FOR USER

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

NOT APPLICABLE

14.8. Other information

US DOT: Shipped as Consumer Commodity ORM-D in packaging having a rated capacity gross weight of 66 lb. or less (49 CFR 173.306(i)). ERG NO. 126
IMDG: EmS. F-D, S-U, Shipped as Limited Quantity
ADR: Classification code 5F, Tunnel restriction code (E), Shipped as Limited Quantity

SECTION 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. EU regulations****Authorisations under Title VII:** Not applicable**Restrictions under Title VIII:** None

Other EU regulations: Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers Directive 94/33/EC on the protection of young people at work. Directive 92/85/EEC on the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding.

15.1.2. National regulations**US EPA SARA TITLE III****312 Hazards:**

Immediate
 Delayed
 Fire
 Pressure Release

313 Chemicals:

Toluene 108-88-3 25-30%
 Methyl Ethyl Ketone 78-93-3 15-25%

TSCA: All chemical components are listed in the TSCA inventory.

Other national regulations: National implementation of the EC Directive referred to in section 15.1.1.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:	<p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road ATE: Acute Toxicity Estimate BCF: Bioconcentration Factor CLP: Classification Labelling Packaging Regulation (1272/2008/EC) ES: Exposure Standard GHS: Globally Harmonized System ICAO: International Civil Aviation Organization IMDG: International Maritime Dangerous Goods LC50: Lethal Concentration to 50 % of a test population LD50: Lethal Dose to 50% of a test population LOEL: Lowest Observed Effect Level N/A: Not Applicable NA: Not Available NOAEL: No Observed Adverse Effect Level NOEC: No Observed Effect Concentration NOEL: No Observed Effect Level OECD: Organization for Economic Co-operation and Development PBT: Persistent, Bioaccumulative and Toxic substance (Q)SAR: Quantitative Structure-Activity Relationship REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (1907/2006/EC) RID: Regulations concerning the International Carriage of Dangerous Goods by Rail SDS: Safety Data Sheet STEL: Short Term Exposure Limit STOT RE: Specific Target Organ Toxicity, Repeated Exposure STOT SE: Specific Target Organ Toxicity, Single Exposure TDG: Transportation of Dangerous Goods (Canada) US DOT: United States Department of Transportation vPvB: very Persistent and very Bioaccumulative substance WEL: Workplace Exposure Limit WHMIS: Workplace Hazardous Materials Information System Other abbreviations and acronyms can be looked up at www.wikipedia.org.</p>
Key literature references and sources for data:	<p>Commission de la santé et de la sécurité du travail (CSST) Chemical Classification and Information Database (CCID) European Chemicals Agency (ECHA) - Information on Chemicals Hazardous Substances Information System (HSIS) National Institute of Technology and Evaluation (NITE) Swedish Chemicals Agency (KEMI) U.S. National Library of Medicine Toxicology Data Network (TOXNET)</p>

Procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008 [CLP] / GHS:

Classification	Classification procedure
Aerosol 1, H222, H229	On basis of components
STOT RE 2, H373L	Bridging principle "Dilution"
Repr. 2, H361d	Bridging principle "Dilution"
Eye Irrit. 2, H319	Calculation method
Skin Irrit. 2, H315	Calculation method
STOT SE 3, H336	Bridging principle "Dilution"

Relevant H-statements: H220: Extremely flammable gas.
H225: Highly flammable liquid and vapour.
H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H361d: Suspected of damaging the unborn child.
H373: May cause damage to organs through prolonged or repeated exposure.
H412: Harmful to aquatic life with long lasting effects.
EUH066: Repeated exposure may cause skin dryness or cracking.

Hazard pictogram names: Flame, health hazard, exclamation mark

Changes to the SDS in this revision: Sections 2, 3.2, 5.1, 8.1, 11, 12.1, 15.1.2, 16

Revision date: 21 December 2015

Further information: None

This information is based solely on data provided by suppliers of the materials used, not on the mixture itself. No warranty is expressed or implied regarding the suitability of the product for the user's particular purpose. The user must make their own determination as to suitability.