according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 02.02.2017

Revision: 02.02.2017



SECTION 2: Hazards identification

[•] 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classifications listed are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H411.

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

[·] 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms

The following pictogram(s) are only for use within Europe: GHS09.



GHS02 GHS07 GHS08 GHS09

· Signal word Danger

(Cont'd. on page 2)

Safety Data Sheet according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA GHS

Printing date: 02.02.2017

Revision: 02.02.2017

Trade name: Low VOC Adhesive

I amound alotoma	(Cont'd. from pa
	nining components of labelling:
heptane	
methyl acetate	anta
Hazard statem	
	Hazard Statements are applicable only to the EU regulations and not the US G
regulation: H41	
	mmable liquid and vapour.
H315 Causes s	
	erious eye irritation.
	e drowsiness or dizziness.
	atal if swallowed and enters airways.
	aquatic life with long lasting effects.
Precautionary	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources smoking.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P261	Avoid breathing mist/vapours/spray.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection.
P240	Ground/bond container and receiving equipment.
P233	Keep container tightly closed.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P271	Use only outdoors or in a well-ventilated area.
P303+P361+P3	853 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin water/shower.
P305+P351+P3	338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lense present and easy to do. Continue rinsing.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P301+P310	IF ŚWALLOWED: Immediately call a POISON CENTER/ doctor.
P331	Do NOT induce vomiting.
P312	Call a POISON CENTER/doctor if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use foam, powder, or carbon dioxide for extinction.
P405	Store locked up.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/internation regulations.
	cards There are no other hazards not otherwise classified that have been identified. Γ and vPvB assessment
PBT: Not applie	cable.
vPvB: Not appl	licable

(Cont'd. on page 3)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 02.02.2017

Trade name: Low VOC Adhesive

Revision: 02.02.2017

(Cont'd. from page 2)

3.2 Mixtures				
Components:				
CAS: 79-20-9 EINECS: 201-185-2 Index number: 607-021-00-X Reg.nr.: 01-2119459211-47-XXXX	methyl acetate Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	40-60%		
CAS: 142-82-5 EINECS: 205-563-8 Index number: 601-008-00-2 Reg.nr.: 01-2119457603-38-XXXX	heptane Flam. Liq. 2, H225 Asp. Tox. 1, H304 Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Skin Irrit. 2, H315; STOT SE 3, H336	10-20%		
CAS: 38123-09-0 EINECS: 253-793-2	Ammonium Carbamodithioic acid(2-hydroxyethyl))-	<3%		

SECTION 4: First aid measures

• 4.1 Description of first aid measures

· After inhalation:

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

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

• After skin contact:

Immediately remove any clothing soiled by the product.

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

• After eye contact:

Remove contact lenses if worn.

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; call for medical help immediately.

A person vomiting while laying on their back should be turned onto their side.

4.2 Most important symptoms and effects, both acute and delayed

Headache Breathing difficulty Dizziness Coughing Irritant to skin and mucous membranes. Causes eye irritation. Gastric or intestinal disorders when ingested. Nausea in case of ingestion.

(Cont'd. on page 4)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 02.02.2017

· Hazards:

Revision: 02.02.2017

Trade name: Low VOC Adhesive

(Cont'd. from page 3)

Danger of impaired breathing. Danger of disturbed cardiac rhythm. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways.

4.3 Indication of any immediate medical attention and special treatment needed

Medical supervision for at least 48 hours.

If swallowed or in case of vomiting, danger of entering the lungs.

Later observation for pneumonia and pulmonary oedema.

Monitor circulation, possible shock treatment.

If necessary oxygen respiration treatment.

SECTION 5: Firefighting measures

[•] 5.1 Extinguishing media

• Suitable extinguishing agents:

Water haze or fog

Foam

Gaseous extinguishing agents

Fire-extinguishing powder

• For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

5.3 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 receptacles with water fog or haze.

SECTION 6: Accidental release measures

• 6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Ensure adequate ventilation

Use personal protective equipment as required.

Keep away from ignition sources.

Protect from heat

6.2 Environmental precautions

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

6.3 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.

(Cont'd. on page 5)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 02.02.2017

Revision: 02.02.2017

(Cont'd. from page 4)

Trade name: Low VOC Adhesive

• 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.

SECTION 7: Handling and storage

• 7.1 Precautions for safe handling

Use only in well ventilated areas. Prevent formation of aerosols. Avoid splashes or spray in enclosed areas. Avoid breathing mist/vapours/spray. Keep out of reach of children.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Do not spray onto a naked flame or any incandescent material.

Fumes can combine with air to form an explosive mixture.

Flammable gas-air mixtures may form in empty receptacles.

Emergency cooling must be available in case of nearby fire.

Keep respiratory protective device available.

7.2 Conditions for safe storage, including any incompatibilities

· Storage:

• Requirements to be met by storerooms and receptacles:

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

Provide ventilation for receptacles.

Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidising agents.

• Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

[•] 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

79-20-9	methyl	acetate
---------	--------	---------

PEL (USA)	Long-term value: 610 mg/m ³ , 200 ppm
REL (USA)	Short-term value: 760 mg/m ³ , 250 ppm
TLV (USA)	Long-term value: 610 mg/m ³ , 200 ppm Short-term value: 760 mg/m ³ , 250 ppm Long-term value: 610 mg/m ³ , 200 ppm Short-term value: 757 mg/m ³ , 250 ppm Long-term value: 606 mg/m ³ , 200 ppm

(Cont'd. on page 6)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 02.02.2017

Trade name: Low VOC Adhesive

(Cont'd. from page 5) 142-82-5 heptane IOELV (EU) Long-term value: 2085 mg/m³, 500 ppm PEL (USA) Long-term value: 2000 mg/m³, 500 ppm REL (USA) Long-term value: 350 mg/m³, 85 ppm Ceiling limit: 1800* mg/m³, 440* ppm *15-min Short-term value: 2050 mg/m³, 500 ppm TLV (USA) Long-term value: 1640 mg/m³, 400 ppm · DNELs: No further relevant information available. · **PNECs:** No further relevant information available. [•] 8.2 Exposure controls · Personal protective equipment: General protective and hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Pregnant women should strictly avoid inhalation or skin contact. Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols. Avoid contact with the eyes and skin. · Respiratory protection: Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded. · Protection of hands: Protective gloves The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. • Eye protection: Safety glasses · Body protection: Protective work clothing • Limitation and supervision of exposure into the environment: Avoid release to the environment. **SECTION 9: Physical and chemical properties** 9.1 Information on basic physical and chemical properties

· Appearance

Form:

Liquid According to product specification Solvent-like

(Cont'd. on page 7)

Colour: · Odour:

Revision: 02.02.2017

Safety Data Sheet according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHŚ

Printing date: 02.02.2017

Revision: 02.02.2017

Trade name: Low VOC Adhesive

	(Cont'd. from page
Odour threshold:	Not determined.
pH-value:	Not determined.
Melting point/freezing point:	Not determined.
Initial boiling point and boiling ran	ge: >35 °C (>95 °F)
Flash point:	< 23 °C (< 73 °F)
Flammability (solid, gas):	Not applicable.
Auto/Self-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Explosive properties:	Product is not explosive. However, formation of explosive ai vapour mixtures are possible.
Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
Oxidising properties	Non-oxidising.
Vapour pressure:	Not determined.
Density:	
Relative density:	<1
Vapour 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.
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

. 10.1 Reactivity No further relevant information available.

[•] 10.2 Chemical stability

• Thermal decomposition / conditions to be avoided: Keep away from heat and direct sunlight.

10.3 Possibility of hazardous reactions

Highly flammable liquid and vapour.

Reacts violently with oxidising agents.

Reacts with strong acids.

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

(Cont'd. on page 8)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 02.02.2017

Revision: 02.02.2017

Trade name: Low VOC Adhesive

(Cont'd. from page 7)

10.4 Conditions to avoid

Keep ignition sources away - Do not smoke. Store away from oxidising agents.

[•] **10.5 Incompatible materials** Oxidisers

• **10.6 Hazardous decomposition products** Carbon monoxide and carbon dioxide

Hydrocarbons

Nitrogen oxides (NOx) Chlorine compounds

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

· LD/LC50 values relevant for classification:

79-20-9 methyl acetate

Oral LD50 3705 mg/kg (rabbit)

142-82-5 heptane

Oral LD50 > 5000 mg/kg (rat) (Estimate)

· Primary irritant effect

• Skin corrosion/irritation:

Causes skin irritation.

· Serious eye damage/irritation:

Causes serious eye irritation.

• Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

• NTP (National Toxicology Program):

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable routes of exposure:

Inhalation

Eye contact. Skin contact.

Acute effects (acute toxicity, irritation and corrosivity):

Vapours have narcotic effect.

Irritating to eyes and skin.

• Germ cell mutagenicity: 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.

(Cont'd. on page 9)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 02.02.2017

Trade name: Low VOC Adhesive

(Cont'd. from page 8)

Revision: 02.02.2017

· STOT-single exposure:

May cause drowsiness or dizziness.

• STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard:

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

[·] 12.1 Toxicity

· Aquatic toxicity: Toxic to aquatic life with long lasting effects.

- * 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.
- Ecotoxical effects:
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Do not allow product to reach ground water, water course or sewage system.

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

[•] 12.5 Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

[•] 13.1 Waste treatment methods

· Recommendation

Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. 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 packaging:

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

SECTION 14: Transport information

[·] 14.1 UN-Number

· DOT, ADR, IMDG, IATA

UN1133

(Cont'd. on page 10)

Safety Data Sheet according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA GHS

Printing date: 02.02.2017

Revision: 02.02.2017

Trade name: Low VOC Adhesive

	(Cont'd. from pag
14.2 UN proper shipping name DOT, IATA ADR, IMDG	Adhesives ADHESIVES
14.3 Transport hazard class(es)	
DOT	
RAMME LOD	
Class	3 Flammable liquids.
Label	3
ADR	
Class	3 (F1) Flammable liquids.
Label	3
IMDG	
Class	3 Flammable liquids.
Label	3
ΙΑΤΑ	
Class	3 Flammable liquids.
Label	3
14.4 Packing group DOT, ADR, IMDG, IATA	II
14.5 Environmental hazards:	Product contains environmentally hazardo substances: heptane
Marine pollutant:	Yes Symbol (fish and tree)
14.6 Special precautions for user	Warning: Flammable liquids.
Danger code (Kemler):	33
EMS Number:	F-E,S-D

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 02.02.2017

Trade name: Low VOC Adhesive

Revision: 02.02.2017

	(Cont'd. from page 10)		
 14.7 Transport in bulk according to Annex of Marpol and the IBC Code 	k II Not applicable.		
· Transport/Additional information:			
·DOT			
Limited Quantity for packages less than 3	30 kg gross and inner packagings less than 5 L each.		
Product is additionally classified as a MARINE POLLUTANT based on MARPOL and DOT rules. Labeling as a MARINE POLLUTANT is not required for non-bulk single package shipments by motor vehicle, rail car or aircraft. Bulk packaging consists of a maximum capacity of greater than 450L (119 gallons) for a liquid and a maximum net mass greater than 400kg (882 pounds) for a solid.			
· ADR			
Limited Quantity for packages less than 3	30 kg gross and inner packagings less than 5 L each.		
·IMDG			
Limited Quantity for packages less than 3	30 kg gross and inner packagings less than 5 L each.		
·IATA			
Limited Quantity for packages less than 1 L net.	30 kg gross and inner packagings less than 0,5 L each /		

SECTION 15: Regulatory information

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

· United States (USA)

· SARA

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

• TSCA (Toxic Substances Control Act):

All ingredients are listed.

(Cont'd. on page 12)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 02.02.2017

Revision: 02.02.2017

Trade name: Low VOC Adhesive

Proposition 65 (California):

(Cont'd. from page 11)

D

Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· Carcinogenic Categories

· EPA (Environmental Protection Agency)

142-82-5 heptane

· IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL)

All ingredients are listed.

· Directive 2012/18/EU

· Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

· Other regulations, limitations and prohibitive regulations

· Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients are listed.

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

SECTION 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.

· Relevant phrases

H225 Highly 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.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

· 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

(Cont'd. on page 13)

Safety Data Sheet according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 02.02.2017

Trade name: Low VOC Adhesive

Revision: 02.02.2017

(Cont'd. from page 12) GHS: Globally Harmonised System of Classification and Labelling of Chemicals 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) DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health LDLo: Lowest Lethal Dose Observed Flam. Liq. 2: Flammable liquids - Category 2 Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 Asp. Tox. 1: Aspiration hazard - Category 1 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2 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., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5. Safety Data Sheets, Individual Manufacturers SDS Prepared by: ChemTel Inc. 1305 North Florida Avenue Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573 Website: www.chemtelinc.com