### Honeywell

#### 212-4 HEXANE UV

#### 00000011372

Version 1.10 Revision Date 07/30/2014 Print Date 02/25/2016 SECTION 1. PRODUCT AND COMPANY IDENTIFICATION Product name Hexane UV : MSDS Number 00000011372 : Product Use Description : Solvent Manufacturer or supplier's : Honeywell International Inc. details 115 Tabor Road Morris Plains, NJ 07950-2546 For more information call 1-800-368-0050 : +1-231-726-3171 (Monday-Friday, 9:00am-5:00pm) In case of emergency call : Medical: 1-800-498-5701 or +1-303-389-1414 Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887 (24 hours/day, 7 days/week) : **SECTION 2. HAZARDS IDENTIFICATION Emergency Overview** Form : liquid, clear Color : colourless Odor : mild hydrocarbon-like Classification of the substance or mixture Classification of the : Flammable liquids, Category 2 substance or mixture Skin irritation, Category 2 Reproductive toxicity, Category 2 Specific target organ toxicity - single exposure, Category 3, Central nervous system Specific target organ toxicity - repeated exposure, Category 2, Page 1 / 16

### SAFETY DATA SHEET Honeywell 212-4 HEXANE UV 000000011372 Version 1.10 Revision Date 07/30/2014 Print Date 02/25/2016 Peripheral nervous system, Central nervous system Aspiration hazard, Category 1 GHS Label elements, including precautionary statements Symbol(s) Signal word : Danger : Highly flammable liquid and vapour. Hazard statements May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness and dizziness. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. : Prevention: Precautionary statements Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/ eye protection/ face protection. Response: IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Get medical advice/ attention. Page 2 / 16

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	Do NOT induce vomiting. If skin irritation occurs: Get med Take off contaminated clothing a In case of fire: Use dry sand, dry foam for extinction.	and wash before reuse.
	<b>Storage:</b> Store in a well-ventilated place. Keep cool. Store locked up.	Keep container tightly closed.
	<b>Disposal:</b> Dispose of contents/ container t plant.	o an approved waste disposal
Carcinogenicity No component of this product or anticipated carcinogen by N ECTION 3. COMPOSITION/INFO		I to 0.1% is identified as a known
Formula	: C6H14	
Chemical nature	: Substance	
Chemical N	lame CAS-No	. Concentration
n-Hexane	110-54-3	3 >60.00 %
Other Hexanes		<40.00 %
	ES	<40.00 %
Other Hexanes SECTION 4. FIRST AID MEASUR	ES : Call a physician immediately. Ren breathing, give artificial respiration oxygen. Use oxygen as required, is present.	nove to fresh air. If not n. If breathing is difficult, give

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Skin contact	:	Wash off immediately with plenty of w minutes. Take off contaminated cloth immediately. Wash contaminated cloth physician.	ing and shoes	
Eye contact	:	Rinse immediately with plenty of wate for at least 15 minutes. Call a physicia		
Ingestion	:	Do not induce vomiting without medical advice. If a person vomits when lying on his back, place him in the recovery position. Call a physician immediately. Never give anything by mouth to an unconscious person.		
Notes to physician				
Treatment	:	Treat symptomatically.		
CTION 5. FIREFIGHTING ME		_		
Suitable extinguishing media	:	Foam Carbon dioxide (CO2) Dry chemical		
		Cool closed containers exposed to fi	re with water spray.	
Unsuitable extinguishing media	:	Do not use a solid water stream as it fire.	may scatter and spread	
Specific hazards during firefighting	:	Extremely flammable. Vapours may form explosive mixture Vapours are heavier than air and ma Vapors may travel to areas away from igniting/flashing back to vapor source In case of fire hazardous decomposi produced such as: Carbon monoxide Carbon dioxide (CO2)	ay spread along floors. m work site before e.	
Special protective equipment	: :	Wear self-contained breathing appar	atus and protective suit.	
for firefighters				

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#### SECTION 6. ACCIDENTAL RELEASE MEASURES Personal precautions Wear personal protective equipment. Unprotected persons must be kept away. Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Remove all sources of ignition. Do not swallow. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Discharge into the environment must be avoided. Do not flush into surface water or sanitary sewer system. Do not allow run-off from fire fighting to enter drains or water courses. Ventilate the area. Methods for cleaning up ÷ No sparking tools should be used. Use explosion-proof equipment. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). SECTION 7. HANDLING AND STORAGE Handling Wear personal protective equipment. Handling Use only in well-ventilated areas. Keep container tightly closed. Do not smoke. Do not swallow. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Keep away from fire, sparks and heated surfaces. Advice on protection against fire and explosion Take precautionary measures against static discharges. Ensure all equipment is electrically grounded before beginning transfer operations. Page 5 / 16

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sion 1.10		Revision Date 07/30/2014	Print Date 02/25/20
		Use explosion-proof equipment.	
		Keep product and empty container awa	ay from heat and
		sources of ignition.	
		No sparking tools should be used. No smoking.	
Storage			
Requirements for storage areas and containers	:	Store in area designed for storage of fl Protect from physical damage.	ammable liquids.
		Keep containers tightly closed in a dry, place.	cool and well-ventilated
		Containers which are opened must be kept upright to prevent leakage.	carefully resealed and
		Keep away from heat and sources of ig	gnition.
		Keep away from direct sunlight.	-
		Store away from incompatible substant	ces.
		Container hazardous when empty.	المام مامثال مستحما م
		Do not pressurize, cut, weld, braze, so expose containers to heat or sources of	
TION 8. EXPOSURE CONT	ROL	S/PERSONAL PROTECTION	
TION 8. EXPOSURE CONT		S/PERSONAL PROTECTION Ensure that eyewash stations and safe	ty showers are close to
			ty showers are close to
		Ensure that eyewash stations and safe	ty showers are close to
Protective measures		Ensure that eyewash stations and safe the workstation location. Use with local exhaust ventilation. Prevent vapour buildup by providing ad	
Protective measures		Ensure that eyewash stations and safe the workstation location. Use with local exhaust ventilation.	
Protective measures Engineering measures		Ensure that eyewash stations and safe the workstation location. Use with local exhaust ventilation. Prevent vapour buildup by providing ad	
Protective measures		Ensure that eyewash stations and safe the workstation location. Use with local exhaust ventilation. Prevent vapour buildup by providing ad during and after use. Do not wear contact lenses. Wear as appropriate:	
Protective measures Engineering measures		Ensure that eyewash stations and safe the workstation location. Use with local exhaust ventilation. Prevent vapour buildup by providing ad during and after use. Do not wear contact lenses. Wear as appropriate: Safety glasses with side-shields	
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Protective measures Engineering measures		Ensure that eyewash stations and safe the workstation location. Use with local exhaust ventilation. Prevent vapour buildup by providing ad during and after use. Do not wear contact lenses. Wear as appropriate: Safety glasses with side-shields	dequate ventilation
Protective measures Engineering measures		Ensure that eyewash stations and safe the workstation location. Use with local exhaust ventilation. Prevent vapour buildup by providing ad during and after use. Do not wear contact lenses. Wear as appropriate: Safety glasses with side-shields If splashes are likely to occur, wear: Goggles or face shield, giving complete Solvent-resistant gloves	dequate ventilation
Protective measures Engineering measures Eye protection		Ensure that eyewash stations and safe the workstation location. Use with local exhaust ventilation. Prevent vapour buildup by providing ad during and after use. Do not wear contact lenses. Wear as appropriate: Safety glasses with side-shields If splashes are likely to occur, wear: Goggles or face shield, giving complete	dequate ventilation
Protective measures Engineering measures Eye protection		Ensure that eyewash stations and safe the workstation location. Use with local exhaust ventilation. Prevent vapour buildup by providing ad during and after use. Do not wear contact lenses. Wear as appropriate: Safety glasses with side-shields If splashes are likely to occur, wear: Goggles or face shield, giving complete Solvent-resistant gloves	dequate ventilation
Protective measures Engineering measures Eye protection Hand protection		Ensure that eyewash stations and safe the workstation location. Use with local exhaust ventilation. Prevent vapour buildup by providing ac during and after use. Do not wear contact lenses. Wear as appropriate: Safety glasses with side-shields If splashes are likely to occur, wear: Goggles or face shield, giving complete Solvent-resistant gloves Gloves must be inspected prior to use. Replace when worn.	dequate ventilation
Protective measures Engineering measures Eye protection		Ensure that eyewash stations and safe the workstation location. Use with local exhaust ventilation. Prevent vapour buildup by providing ad during and after use. Do not wear contact lenses. Wear as appropriate: Safety glasses with side-shields If splashes are likely to occur, wear: Goggles or face shield, giving complete Solvent-resistant gloves Gloves must be inspected prior to use.	dequate ventilation
Protective measures Engineering measures Eye protection Hand protection		Ensure that eyewash stations and safe the workstation location. Use with local exhaust ventilation. Prevent vapour buildup by providing ad during and after use. Do not wear contact lenses. Wear as appropriate: Safety glasses with side-shields If splashes are likely to occur, wear: Goggles or face shield, giving complete Solvent-resistant gloves Gloves must be inspected prior to use. Replace when worn. Wear as appropriate:	dequate ventilation

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	Flame retardant antistatic protective clothing If splashes are likely to occur, wear: Protective suit	)
Respiratory protection :	In case of insufficient ventilation wear suitable quipment. For rescue and maintenance work in storage contained breathing apparatus. Use NIOSH approved respiratory protection.	e tanks use self-
Hygiene measures :	<ul> <li>When using, do not eat, drink or smoke.</li> <li>Wash hands and face before breaks and im handling the product.</li> <li>Keep working clothes separately.</li> <li>Remove and wash contaminated clothing be Do not swallow.</li> <li>Do not breathe vapours or spray mist.</li> <li>Avoid contact with skin, eyes and clothing.</li> </ul>	

### Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Upda te	Basis
n-Hexane	110-54-3	SKIN_DE S : Skin designati on:	Can be absorbed through the skin.	2008	ACGIH:US. ACGIH Threshold Limit Values

n-Hexane	110-54-3	TWA :	(50 ppm)	2008	ACGIH:US. ACGIH
		time			Threshold Limit
		weighted			Values
		average			

n Llavana	110 51 3	REL :	100 mg/m2	2005	
n-Hexane	110-54-3	REL .	180 mg/m3	2005	NIOSH/GUIDE:US.
		Recomm	(50 ppm)		NIOSH: Pocket
		ended			Guide to Chemical
		exposure			Hazards
		limit			
		(REL):			

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ion 1.10		Revision Date	9 07/30/2014		Print Date 02/25
n-Hexane	110-54-3	PEL : Permissi ble exposure limit	1,800 mg/m3 (500 ppm)	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
n-Hexane	110-54-3	TWA : time weighted average	180 mg/m3 (50 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
Other Hexanes		TWA : time weighted average	(500 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values
Other Hexanes		STEL : Short term exposure limit	(1,000 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values
Other Hexanes		Ceil_Tim e : Ceiling Limit Value and Time Period (if specified) :	1,800 mg/m3 (510 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards
Other Hexanes		REL : Recomm ended exposure limit (REL):	350 mg/m3 (100 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards
Other Hexanes		STEL : Short term exposure limit	3,600 mg/m3 (1,000 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
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rsion 1.10	Revision Date 07/30/2014	Print Date 02/25/20
Other Hexanes	TWA : 1,800 mg/m3 1989 time (500 ppm) weighted average	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
	average	
CTION 9. PHYSICAL AND CH	EMICAL PROPERTIES	
Physical state	: liquid, clear	
Color	: colourless	
Odor	: mild hydrocarbon-like	
рН	: Note: not applicable	
Melting point/freezing point	: -95 °C	
Boiling point/boiling range	: 68.7 °C	
Flash point	: -15 °F (-26 °C) Method: closed cup	
Lower explosion limit	: 1 %(V)	
Upper explosion limit	: 7.7 %(V)	
Vapor pressure	: 165.32 hPa at 20 °C(68 °F)	
Vapor density	: 3 Note: (Air = 1.0)	
Density	: 0.659 - 0.673 g/cm3 at 20 °C	
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Water solubility	: Note: negligible			
Water Solubility				
Ignition temperature	: 225 °C			
Molecular weight	: 86.18 g/mol			
ECTION 10. STABILITY AND	REACTIVITY			
Chemical stability	: Stable under recommended storage	conditions.		
Possibility of hazardous reactions	: Hazardous polymerisation does not	occur.		
Conditions to avoid	: Heat, flames and sparks. Keep away from direct sunlight.			
Incompatible materials to avoid	: Oxidizing agents Halogens			
	Oxygen May attack many plastics, rubbers a	nd coatings.		
Hazardous decomposition products	: In case of fire hazardous decomposi produced such as:	tion products may be		
products	Carbon monoxide Carbon dioxide (CO2)			
ECTION 11. TOXICOLOGICAL	INFORMATION			
Acute oral toxicity	: LD50: 25,000 mg/kg			
	Species: rat Test substance: n-Hexane			
Acute inhalation toxicity	: LC50: 48000 ppm Exposure time: 4 h			
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	Species: rat Test substance: n-Hexane	
Acute dermal toxicity	: LD50: 3,000 mg/kg Species: rabbit Test substance: n-Hexane	
Skin irritation	: Species: rabbit Result: irritating Test substance:n-Hexane	
Eye irritation	: Species: rabbit Result: slight irritation Test substance: n-Hexane	
Repeated dose toxicity	: Species: rat Application Route: Inhalation Exposure time: 8 d Test substance: n-Hexane Note: central nervous system effects in sperm 5,000 ppm	structural abnormalities
	: Species: rat Application Route: Oral Exposure time: 90 d LOAEL (Lowest observed adverse e Test substance: n-Hexane Note: central nervous system effects observed adverse effect level	
	: Species: rat Application Route: Oral Exposure time: 90 d LOAEL (Lowest observed adverse e Test substance: n-Hexane Note: central nervous system effects observed adverse effect level	
	: Species: rat Application Route: Inhalation Test substance: n-Hexane	
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	Note: Developmental Toxicity NOA ppm NOAEL (developmental toxici			
Genotoxicity in vitro	: Test substance: n-Hexane Note: In vitro tests did not show mu	Test substance: n-Hexane Note: In vitro tests did not show mutagenic effects		
Genotoxicity in vivo	: Test substance: n-Hexane Note: In vivo tests did not show mutagenic effects			
CTION 12. ECOLOGICAL INF	ORMATION			
Ecotoxicity effects				
Toxicity to fish	: LC50: 4.14 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (ra Test substance: n-Hexane	inbow trout)		
	: LC50: 2.5 mg/l Exposure time: 96 h Species: Pimephales promelas (fat Test substance: n-Hexane	head minnow)		
	: LC50: 4.12 mg/l Exposure time: 96 h Species: Lepomis macrochirus (Blu Test substance: n-Hexane	legill sunfish)		
Toxicity to daphnia and other aquatic invertebrates	: LC50: 3.87 mg/l Exposure time: 96 h Species: Daphnia magna (Water fle Test substance: n-Hexane	ea)		
Further information on ecol	ogy			
Additional ecological information	: Toxic to aquatic organisms, may car effects in the aquatic environment. Should not be released into the environment	-		

#### Honeywell SAFETY DATA SHEET 212-4 HEXANE UV 000000011372 Version 1.10 Revision Date 07/30/2014 Print Date 02/25/2016 SECTION 13. DISPOSAL CONSIDERATIONS **Disposal methods** : Observe all Federal, State, and Local Environmental regulations. SECTION 14. TRANSPORT INFORMATION DOT UN/ID No. : UN 1208 Proper shipping name : HEXANES Class 3 Packing group Ш Hazard Labels 3 : UN 1208 ΙΑΤΑ UN/ID No. Description of the goods : HEXANES Class : 3 Packaging group : 11 Hazard Labels : 3 Packing instruction (cargo : 364 aircraft) Packing instruction : 353 (passenger aircraft) Packing instruction : Y341 (passenger aircraft) IMDG : UN 1208 UN/ID No. Description of the goods : HEXANES Class : 3 Packaging group : 11 Hazard Labels : 3 EmS Number : F-E, S-D Marine pollutant : no SECTION 15. REGULATORY INFORMATION Inventories US. Toxic Substances : On TSCA Inventory Control Act Page 13 / 16

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Australia. Industrial Chemical (Notification and Assessment) Act	: On the inventory, or in compliance with the inventory			
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	: All components of this product are on the Canadian DSL.			
Japan. Kashin-Hou Law List	: On the inventory, or in compliance with the inventory			
Korea. Toxic Chemical Control Law (TCCL) List	: On the inventory, or in compliance with the inventory			
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	: On the inventory, or in compliance with the inventory			
China. Inventory of Existing Chemical Substances	: On the inventory, or in compliance with the inventory			
New Zealand. Inventory of Chemicals (NZloC), as published by ERMA New Zealand	: On the inventory, or in compliance with the inventory			
National regulatory informa	tion			
US. EPA CERCLA Hazardous Substances (40 CFR 302)	: The following component(s) of this product is/are subject to release reporting under 40 CFR 302 when release exceeds the Reportable Quantity (RQ):			
	Reportable quantity: 5000 lbs : n-Hexane	110-54-3		
SARA 302 Components	: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.			
SARA 313 Components	<ul> <li>The following components are subject to reporting levels established by SARA Title III, Section 313:</li> <li>n-Hexane 110-54-3</li> </ul>			
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SARA 311/312 Hazards	: Fire Hazard Acute Health Hazard Chronic Health Hazard				
CERCLA Reportable Quantity	: 5000 lbs	: 5000 lbs			
California Prop. 65	: WARNING! This product contains State of California to cause cance Benzene				
	: WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Benzene 71-43-2				
Massachusetts RTK	: n-Hexane : Benzene	110-54-3 71-43-2			
New Jersey RTK	: n-Hexane : Other Hexanes	110-54-3			
Pennsylvania RTK	: n-Hexane : Other Hexanes	110-54-3			
WHMIS Classification	: B2: Flammable liquid D2A: Very Toxic Material Causing Other Toxic Effects This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.				
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SECTION 16. OTHER INFOR	MATION		
	HMIS III	NFPA	
Health hazard	: 1*	1	
Flammability	: 3	3	
Physical Hazard	: 0		
Instability	:	0	
* - Chronic health hazard			
Hazard rating and rating use of individuals trained			mation is intended solely for the
Further information			
to be considered a warra material designated and materials or in any proce material is the sole response any specific product prop Changes since the last v versions. Previous Issue Date: 06/	nty or quality specific may not be valid for ss, unless specified i insibility of the user. perties. ersion are highlighted 23/2014	ation. The information such material used in c n the text. Final determ This information should t in the margin. This ve	disposal and release and is not relates only to the specific combination with any other nination of suitability of any d not constitute a guarantee for ersion replaces all previous roduct Stewardship Group
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